

← WEEK
AGO

BUSINESS WEEK

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← START
OF WAR
1939



Battle line: In the shipyards.

BUSINESS
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INDEX

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When *Black Means White!*

OUT OF CARBON . . . blackest substance man knows . . . comes the whitest, brightest light that man has achieved . . . that of the carbon arc lamp. With an intensity of light rivaling that of the sun, the useful carbon arc is necessary in giant searchlights for anti-aircraft defense, battleships, and other vital uses . . . in motion picture projectors . . . in sun lamps that heal and lamps that increase the vitamin D content of milk . . . in accelerated testing equipment that points the way to longer life for fabrics, paints, plastics, and other materials you use.

Without carbon and its wonders, our electrical civilization could not have been born. For without brushes made from carbon, electricity for light and power could not be generated in vast amounts . . . today's automobiles would not run . . . today's airplanes would not leave the ground.

Without carbon, in the form of electrodes and anodes, much of the highest quality steel, many of the chemicals, and other useful substances vital to this nation could not be made. For years, NATIONAL CARBON COMPANY, INC., a Unit of UCC, has studied carbon and graphite . . . their properties and uses . . . and has made useful things from them. Much has been accomplished. Through further research in carbon, more answers for tomorrow's problems are being found.

Research and engineering developments in carbon made by National Carbon Company, Inc., have been tremendously facilitated by the electric-furnace experience and the knowledge of industrial gases and chemicals of other Units of Union Carbide and Carbon Corporation.

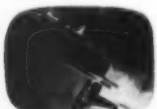
BUY UNITED STATES WAR BONDS AND STAMPS



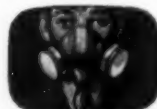
ACTION! CAMERA! Without the high-intensity carbon arc . . . used for photographing motion pictures and projecting them in theaters . . . we would not have the high-quality motion pictures of today.



CARBON, THE VERSATILE. In addition to its electrical uses, electric furnace graphite, a form of carbon, is used for making absorption towers, heat exchangers, and pumps for corrosive liquids; and for making metallurgical molds.



MAN-MADE INFERNO. Modern alloy steels are made in electric furnaces. These furnaces depend upon huge carbon and graphite electrodes for intense heat. They help make more . . . and better . . . steels.



LIFE SAVER. Activated carbon is necessary for gas masks to give protection against industrial and war gases. It also aids in the recovery of millions of pounds of solvents used by industry each year.

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MAKE YOUR DOLLARS FIGHT IN WORLD-WIDE OFFENSIVES



Every hour, day and night, nine more planes roll off the production lines for world-wide offensive action

ALL-OUT attack wins wars, and all-out attack is what the Axis is in for . . . offensives far beyond anything Hitler or Tojo ever reckoned with . . . offensives backed by the irresistible power of a united America . . . offensives reaching back from world-wide battle fronts, through this Nation's great production lines to the first offensive line of all, the home front. What we do here at home will be decisive in speeding Victory.

All-out attack demands all-out War Bond purchases. Let us make our dollars fight as never before. Over \$18-billion was raised in the Second War Loan Drive. Many millions of individual investors bought these Bonds. But more investors are needed. It is the individual purchases of each one of us that count most, both in backing our fighting men and in combatting inflation. If you have already bought, buy more . . . join the Payroll Savings Plan . . . keep on buying Bonds, month in and month out.



FIGHT WITH YOUR DOLLARS AS OUR BOYS FIGHT WITH THEIR LIVES

BANKERS TRUST COMPANY
NEW YORK



Air, Coal, Oil and Grain

• America's incredible chemical industry — fighting with test tubes — is turning air, coal, oil and grain into deadly weapons of war.

It has already developed plastics for uses undreamed of even a year ago. It is producing materials for parachutes, smoke screens, airplanes and new high explosives. These are but a handful of the fighting products that today flow in unprecedented volume from the genius and dogged determination of American chemists.

How well this country is fighting — in this fantastic hour of synthetics — pays high tribute to the research and initiative found in the American business system.

Seventy-seven years of research and practical experience in engineering insurance enable Hartford Steam Boiler to do a unique, specialized job for many chemical plants. That job is to help keep boilers, turbines and generators safe for service . . . to help detect flaws and weaknesses in them and in reaction kettles and retorts before disastrous accidents can happen.

All the technical resources of Hartford Steam Boiler and all the skill of its hundreds of engineers and inspectors are concentrated on this task — to help America's war production by helping industry keep power equipment on the job.



Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

**THE HARTFORD STEAM BOILER INSPECTION
AND INSURANCE COMPANY • Hartford Connecticut**

BUSINESS WEEK

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WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Still an Umpire

Justice James F. Byrnes' new OWM is not, actually, an office of war mobilization. It might become one, but it probably won't.

On paper, OWM has been charged by the President with two jobs: (1) It is to develop a unified, consistent program for all phases of the civilian war effort, to make the basic allocations of materials, manpower, transportation, manufacturing capacity—the real “war mobilization” job which congressional critics of the war program have been urging for months; (2) it is to function as an umpire, settling conflicts as they arise among the war agencies and industry czars (food, rubber, oil, transportation, housing, power) spawned by the War Production Board's failure to coordinate its job.

As long as Byrnes is the moving spirit of OWM, the second duty will be the significant one. By temperament, experience, and inclination, Byrnes is an adjudicator, a compromiser rather than an economic planner. He himself recognizes this as well as anyone and has no desire to take over the broad administration of the war program, even on a high policy level.

Another Mobilizer?

Another man than Byrnes working under Byrnes' executive order might make himself a real war mobilizer. The Kilgore-Truman-Pepper-Tolan group in Congress was quick to recognize this. And, now that they have been effectively headed off in their effort to set up a super-duper mobilization agency by legislation, they are planning to concentrate on the job of building the Office of War Mobilization into the sort of agency they have in mind.

They are pressing Byrnes to appoint WPB executive vice-chairman Charles E. Wilson, whom they admire, as executive secretary of the Office of War Mobilization. This would put an entirely different face on, as well as in, OWM. The Republican liberals—Brewster, Ball, Ferguson, Burton—go along with this move. The congressional group has had kind words from Byrnes, but its chances aren't good.

Incidentally, there would be some wry faces among Washington business men if its adoption of a business man should put the primarily political and New Dealish OWM in a position where it could claim any part of the public credit for the flood of armament now beginning to roll in overwhelming vol-

ume (7,000 planes, 175 merchant ships in May; probably 8,000 planes in June and 10,000 a month by the end of the year).

No Steel Released

Reports that WPB's Office of Civilian Requirements is going to get special steel allotments for refrigerators, vacuum sweepers, and other consumer durable goods during the third quarter are still based on wishful thinking. OCR will be lucky to get enough steel for such little items as pots, pans, and garbage cans (BW—May 15 '43, p14). However, there may be a fourth-quarter allotment for washing machines and irons (to take the pressure off laundries).

As evidence of how tiny a trickle of

steel is now flowing into civilian channels, WPB is cranking up a campaign to have consumers sell spare irons, sweepers, and other electric appliances back to dealers. WPB says there is enough mica and wire to repair the old stuff and make it serviceable.

Fathers or Sons?

The War Manpower Commission is getting increasingly jittery as the time approaches for the drafting of fathers. It's doing everything it can to stave off the evil moment.

WMC people have sold the Navy on lowering its physical standards and using more Negroes, thus increasing the number of available childless men. There's even some thought of lowering the draft

What Vinson Brings to His Job

Judge Fred M. Vinson, drafted from the Court of Appeals bench to succeed James F. Byrnes as Director of Economic Stabilization, is no stranger to business men. As chairman of the tax subcommittee of the House Ways & Means Committee, Vinson made his name in 1936 when he carried through Congress the undistributed profits tax—the brain child of the late Herman Oliphant, then the Treasury's general counsel. The former Kentucky congressman also sponsored the first bituminous coal act, later struck down by the Supreme Court on constitutional grounds.

• **Profits Taxer**—Although a New Dealer, Judge Vinson was not considered a rabid one. While his name is closely associated with the undistributed profits tax, his sponsorship of the legislation was forced upon him by the fact that he fell heir to chairmanship of the tax committee when Rep. Sam Hill of Washington was appointed to the Court of Customs and Patent Appeals. Vinson's tax law lasted only two years, but his efforts in putting it across for the Administration in the face of the strongest kind of opposition from business, and in saving it from extinction in 1937 by inserting cushions against its impact on small firms, were sufficient to bring him directly under the eyes of the President.

Vinson was rewarded by Roosevelt in 1938 (when the controversial tax reform law was wiped off the statute



Veteran of Famous Tax Battle

books) by appointment as associate justice of the United States Court of Appeals for the District of Columbia. In 1942, he was designated by Chief Justice Harlan F. Stone as the chief judge of the United States Emergency Court of Appeals under the Price Control Act of 1942.

• **Qualifications**—Washington comment on the Vinson appointment is of the wait-and-see variety but, on the whole, favorable. With his knowledge of the coal industry, his legal slant on the issues involved in price control, and more importantly his training for a dominant rôle in taxation, Vinson may well be able to carry on from where Byrnes left off.



U. S. SHIPBUILDERS jumped construction from two ocean-going freighters during the 15 years from 1922-1937 to 664 in 1942 alone! Shell participates by developing special Industrial and Marine Lubricants to meet new needs.

LIBERTY BRIDGE

Salute to the fantastic: the 8,000,000-ton 1942 quota achieved. The amazing total of 16,000,000 to 24,000,000 tons to be launched in '43! Vital shipping to carry today's mechanized armies—730 ships, instead of the 480 used in the last war, necessary to ferry each million men overseas.

• • •

SHIP NEWS: A Shell Lubricant makes possible full-capacity operation of structural bending machines—saves hours each week . . . Three large West Coast shipyards, after trying all available cable dressings, find a Shell Lubricant speeds work, lengthens life of vital cables and blocks . . . Another shipyard finds that Shell Cutting Oil makes a cleaner cut, lessens finishing time . . . Another, that a Shell Lubricant saves time, material, overhaul in presses and punch machines . . .

On the high seas—U. S. Navy takes first call on Shell Turbo Oil to lubricate mighty turbines in

battleships, aircraft carriers, cruisers, destroyers . . .

As war production sets new records, proper lubrication becomes even more vital. Yesterday's solution is seldom good enough for today.

Constant improvement in Shell Lubricants is a major responsibility of the "University of Petroleum," Shell's research laboratories. Shell engineers apply these improvements in the field.

Are you sure your plant has the benefit of all that is new in lubrication as it develops?



First oil refinery to win the Army-Navy "E"—Shell's Wood River Refinery.



Leaders in War Production rely on
SHELL INDUSTRIAL LUBRICANTS

age to 17 in order to keep out fathers. Possibly the deal that was defeated on the 18-year olds—to hold them in this country for a year of training—might be offered on the seventeneers.

Draft Outlook

Short of some such drastic move as lowering the age limit, the draft prospect still is that half the eligible men now in civvies will be in uniform by year-end.

Of 6,000,000 healthy 18-38's available May 1, 2,700,000 will be drafted. Another 900,000 will be deferred for extreme hardship, 900,000 will be held on the farm, and 1,500,000 will be occupationally deferred.

This represents a half million more than present occupational deferments, but present deferments, by and large, are limited to single men; until recent weeks, essential married workers have been kept out by their families rather than their jobs.

Setting the Stage?

When the talk of a Roosevelt-Churchill-Stalin get-together in Cairo was first heard in Washington, diplomatic circles noted that Egyptian recognition of the Soviet Union was a necessary prerequisite. Last week, that recognition became suddenly an accomplished fact.

Jeffers Puzzles Them

Some Washington officials who keep a rather cynical eye on the synthetic rubber program are wondering whether Rubber Director William M. Jeffers has pulled a serious boner in letting his program get out of balance or whether it's one of the year's smartest jobs of pressure politics.

What Jeffers has done is to concentrate so much of his effort on the production of butadiene that capacity for styrene, the other component of synthetic, is far behind.

The situation is made apparent by the frantic search for pressure storage in which to keep the butadiene output of the Institute plant (page 48), which came in last month with three-fourths of its butadiene capacity but only half of the needed styrene.

Cutback on Rubber?

This unbalance in the synthetic rubber program may result from the original belief that production of styrene would present no problem and from the

fact that the butadiene plants are producing above rated capacity—though this last has been obvious for months. But Jeffers' admirers point out that he is now in a strong position to resist the pressure that will come for a cutback of his program.

With 850,000 tons capacity due this year, while unexpectedly large imports have reduced essential requirements below 600,000, pressure is building up for release of critical components to the urgent high-octane gasoline program. But, with his full butadiene quota nearing completion, Jeffers can argue that it would be criminal waste not to provide the complementary styrene.

Food vs. Tires

Also working for Jeffers is the alcohol-petroleum relationship. The plants to produce butadiene from grain alcohol are coming along faster than the petroleum-base plants. Hence those cuts already made have been in the petroleum plants, and that's the logical place for further cuts. But with a grain shortage in the offing, the petroleum plants are wanted to free the country from reliance for rubber on grain that may be needed for food.

Akron Still Simmers

The rubber industry figures that last week's strike in Akron cost the government \$20,000,000 worth of product and was the most costly in the town's turbulent labor history. Nor is the trade certain that it has this particular dispute behind it. A rehearing of the wage issue underneath the strike is being undertaken by the National War Labor Board. It was the board's action in substituting a 3¢-an-hour pay increase for the 8¢ recommendation of its own panel that precipitated the walkout.

NWLB was emphatic in vetoing the panel report on the grounds that it would unstabilize wage rates throughout the industry—a contention with which rubber management agreed. Now, as the price for stopping the strike, the board will reexamine the question.

Resumption of operations takes a pistol away from NWLB's head, but it hasn't got the itch out of the trigger finger of Akron's local labor leadership.

Churchill Ducks Dukedom

The question of what sort of token a grateful nation would present to

New Concentration Drive—Murphy Up

Concentration of civilian industry has long been abandoned by WPB, but now concentration is up again—concentration of the munitions industries. It's in the hands of Beverley Murphy, Campbell Soup vice-president, who heads WPB's new Industrial Facilities Committee, set up to control construction of new facilities.

• **Goes with Cutbacks**—Munitions concentration is part of the new drive to hold down construction of additional facilities. Idea is that if three plants are working at less than capacity on a cutback munitions item, the work can be concentrated into two plants, releasing one plant for a job on which new facilities are needed.

• **Bound for Trouble**—Handling the concentration plan will be a big job, involving transfer of contracts, moving of tools, perhaps even shifting of workers. Murphy is bound to step on plenty of toes. Already he's crossed swords with Tool Division head George Johnston on the contention that his program will permit a greater cut in the production of machine tools than Johnston thinks



Plenty of Toes to Step On

safe. Vice-Chairmen Charles E. Wilson and Ralph Cordiner of WPB backed up Murphy, and Johnston has quit. John S. Chaffee, his deputy, succeeds to the job.

save a train seat

FOR A SOLDIER



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WASHINGTON BULLETIN (Continued)

Winston Churchill once the final victory is won has been teatime conversation throughout the British Empire since Rommel was turned at El Alamein. Last week, it was raised to the level of political discussion at an informal supper which members of the British Cabinet held in the Prime Minister's absence.

The way Washington hears it, this discussion revealed no differences of opinion. Churchill was, like his illustrious and favorite ancestor, Marlborough, to be presented with a dukedom. George VI, informed of the sentiments of his ministers, expressed regal enthusiasm.

However, this was too good a secret to be kept, and Churchill heard the news when he landed at Gibraltar en route home. As the story concludes, his comment was an immediate "No, thanks"—with a reminder to his informant that only a commoner, who could sit in the House of Commons, was likely to get the Prime Ministry in this political age. And son Randolph, now in Commons, wasn't going to be taken out of the running by a coronet for Winston, involving a marquise for him.

Back in Business

The War Production Board this week removed preference ratings for distribution of textile and leather products from all but some military and essential civilian demands, thus restoring unrestricted distribution to a big section of industry. Cancellation of procurement ratings became effective June 1.

Confusion caused by "uncoordinated and uncontrolled" assignments is given as the reason for the new order, M-328. As a result, textile and leather producers and distributors can sell their output and stocks to any purchaser once they have met military and essential civilian needs.

If sellers fail to use good judgment in giving purchasers with essential needs the goods they want, the government is likely to return with much stricter control through allocations. Ratings have been abused in the past; for instance, priorities for operating purposes have been used to replace worn-out carpets when no one had determined whether or not the wool might be more essential for civilian clothing.

Conservative on Labor Job

Employers to whom the WPB-sponsored labor-management plant committees have always looked like Soviets will be gratified that the new labor vice-chairman who is to head WPB's pro-

duction drive is a conservative A.F.L. man. The C.I.O.—which has been interested in the organizational potentialities of the labor-management committees—has put its man into WPB as vice-chairman to handle production manpower problems. The A.F.L. vice-chairman, Joseph Keenan, is from the building trades, has been in WPB for long time as administrator of the successful Construction Labor Stabilization Agreement worked out by OPM two years ago.

C.I.O. had a hard time finding labor official who dared to leave his union fences unmended for long (BW, May 22 '43, p7) but finally settled on Clinton Golden of the steelworkers.

The A.F.L. vice-chairman will have a C.I.O. assistant and vice versa. Wendell Lund, head of WPB's Labor Production Division, is resigning.

Soap Rationing Delayed

Soap rationing, originally scheduled for early June, has been postponed temporarily owing to OPA staff limitations. Rationing at the rate of 1½ lb. a month per person will be started as soon as OPA can work out the details. Shaving soap may be excluded.

Rationing was forced by the rapid rate of soap disappearance combined with the failure of the fats and oils salvage program to bring in enough to maintain high levels of production (BW-May 15 '43, p24). Rationing is expected to concentrate soap sales in grocery stores.

Soap stamps will be torn out of one of the food ration books; consequently it will be more convenient for Mrs. Housewife to buy her soap at the grocery store than at the drug or department store.

Capital Gains (and Losses)

New substitute for shoe leather: flexible wooden soles, developed at the Forest Products Laboratory in Madison, Wis. Army is considering them for tropical climates, where leather often won't stand the gaff.

WPB's Office of War Utilities has been fairly successful in lobbying against state revocation of war time. It lost in the Michigan, Ohio, and Georgia legislatures, but most cities in those states are remaining on war time, and it is in cities that reduction in power peak loads is vital. In Illinois, an anti-war time bill was tabled. No difficulty anticipated in killing similar legislation in Florida.

—Business Week
Washington Bureau

FIGURES OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
INDEX (see chart below)	*206.7	†205.8	203.5	191.0	180.0
PRODUCTION					
Steel Ingot Operations (% of capacity)	98.4	99.3	98.2	98.3	99.3
Production of Automobiles and Trucks	16,775	19,175	18,990	14,345	21,500
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands) . . .	\$12,845	\$11,402	\$12,873	\$25,015	\$38,460
Electric Power Output (million kilowatt-hours)	3,990	3,992	3,867	3,766	3,323
Crude Oil (daily average, 1,000 bbls.)	3,970	4,006	3,919	3,878	3,877
Stimulous Coal (daily average, 1,000 tons)	1,928	†2,050	1,973	1,925	1,878
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	80	80	79	81	79
All Other Carloadings (daily average, 1,000 cars)	61	61	53	58	61
Money in Circulation (Wednesday series, millions)	\$16,902	\$16,795	\$16,593	\$14,648	\$11,971
Department Store Sales (change from same week of preceding year)	+20%	+16%	+29%	+30%	-2%
Business Failures (Dun & Bradstreet, number)	64	47	52	107	210
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	245.7	245.8	246.3	230.9	230.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . .	159.8	160.1	159.6	154.9	152.9
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . .	207.9	207.6	208.0	186.7	183.5
Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Crude Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.38	\$1.38	\$1.38	\$1.24	\$1.13
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	21.26¢	21.22¢	21.14¢	19.25¢	19.44¢
Wool Tops (New York, lb.)	\$1.340	\$1.345	\$1.335	\$1.184	\$1.209
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
10 Stocks, Price Index (Standard & Poor's Corp.)	96.2	94.6	93.2	74.0	65.0
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.89%	†3.90%	3.93%	4.28%	4.30%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.74%	2.74%	2.75%	2.81%	2.85%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years) .	2.29%	2.30%	2.31%	2.36%	2.33%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	‡-‡%	‡-‡%	‡-‡%	‡-‡%	‡%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	31,185	30,652	30,098	30,224	25,511
Total Loans and Investments, reporting member banks	47,068	47,368	45,772	37,939	31,726
Commercial and Agricultural Loans, reporting member banks	5,512	5,545	5,645	6,241	6,557
Securities Loans, reporting member banks	1,662	1,751	2,156	800	938
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks . .	34,093	34,215	31,909	24,581	17,180
Other Securities Held, reporting member banks	3,074	3,079	3,226	3,300	3,584
Excess Reserves, all member banks (Wednesday series)	1,500	1,640	2,280	2,518	2,535
Total Federal Reserve Credit Outstanding (Wednesday series)	6,493	6,434	6,655	5,083	2,584

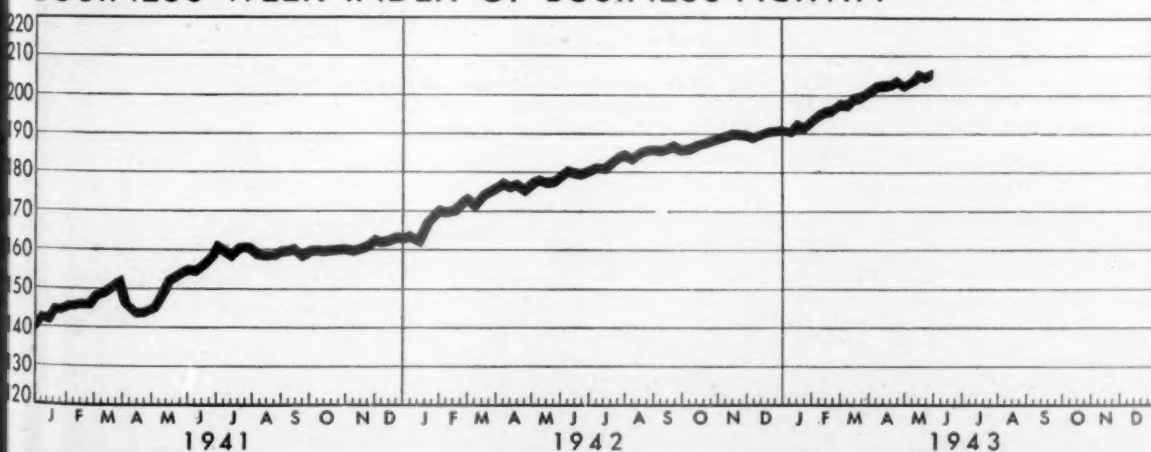
† Preliminary, week ended May 29th.

‡ Ceiling fixed by government.

† Revised.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



What becomes of



THERE'S a sign hanging at Hotel Pennsylvania.

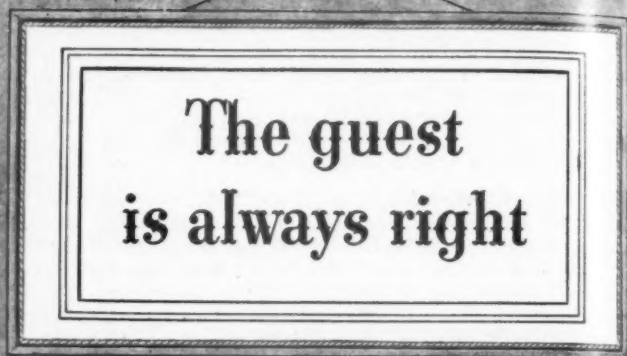
● It's a sign that was put up the day Hotel Pennsylvania opened its doors. It's a sign that will *stay* up there as long as Hotel Pennsylvania is in existence.

That sign reads, "The guest is always right." And that applies in wartime as well as peacetime.

No matter what difficulties the war may bring us, our first consideration is for the comfort and well-being of you — our guest.

You may be a serviceman, or a civilian on a war mission, or an essential wartime traveler.

But no matter *what* job you are doing, that sign is your guarantee that we shall give you the best possible service we know how to give.



in WARTIME?

In this spirit, may we ask your cooperation in helping us solve two wartime problems to the best interests of you and us?

- 1. In the matter of reservations.** Reserve your Hotel Pennsylvania rooms as far in advance as possible. Cancel any unwanted rooms promptly. Let us know as far ahead as you can, when you intend to check out.
- 2. In the matter of service.** *If service occasionally seems a trifle slow, please bear with us. Many of our*

regular staff have gone into armed services and our new people may not be fully familiar with our routine.

We're sure you'll co-operate with cheerfully. And you can be sure we do our level best to prove to you that at Hotel Pennsylvania, "The guest is always right."

YOUR DOLLARS ARE URGENTLY NEEDED FOR U. S. WAR BONDS

THE STATLER HOTEL IN NEW YORK

HOTEL PENNSYLVANIA

JAMES H. McCABE, General Manager

THE OUTLOOK

Job for a Mobilizer

Strikes shadow the production picture, and price-cost problems get even more complex. Tide is still running out on civilian goods. New curtailments may be in prospect.

With coal again in the forefront of news this week, the effects on the long side of the balance sheet of inflation and production began to mount. Even last month's stoppages, including wildcat strikes in the mines, lost more than 6,000,000 tons of production, or total 1943 needs. This week's shutdowns will reduce available supplies more than that.

Precedent

What's more, it is clear that, just as miners' defiance of the no-strike pledge a month ago stirred workers in other fields into "unauthorized" strike series (BW—May 29 '43, p13), so will their new walkout accelerate all the worst tendencies towards direct action in other industrial fields. Strikes loom as an ever larger debit factor in the immediate production outlook.

Another 1.3% jump in April has added the cost of living to 23% above January, 1941, level—as compared with the 15% increase upon which the Steel wage formula is based. If the official index reflects only some, no means all, the price ceiling violations. The biggest advances, of course, come in retail food costs (page 30), which the Office of Price Administration is now trying to roll back. However, Lewis' example forces other unions to wait for OPA, or if OPA's efforts would fail because of a lack of funds for subsidies and ceiling enforcement, the bare line on wage rates may well be broken.

Price-Cost Dilemma

That would complicate the already complex price-cost problem facing the OPA and the Office of Civilian Requirements in many production lines—a problem that the new Office of War Mobilization may yet have to resolve.

On the one hand, price ceilings are making capacity operations unprofitable in some cases. Some producers, as in textiles, cannot afford the 50% wage premium for overtime, while others, as in tanning, cannot pay the higher wages needed to attract new (and less efficient) workers into the labor market.

On the other hand, insufficient price and production control is permitting the manufacturers to concentrate on relatively high-price and high-profit-mar-

gin output. In a war economy, which puts emphasis on increasing quantities of standard and simplified products, such upgrading works to the detriment of civilian supply. This week's WPB order canceling all outstanding preference ratings for textiles and leather goods, except those covering military or other governmental needs, puts it up to the industry to tighten control over nonessential uses of contracting civilian supplies.

No Turn in Tide

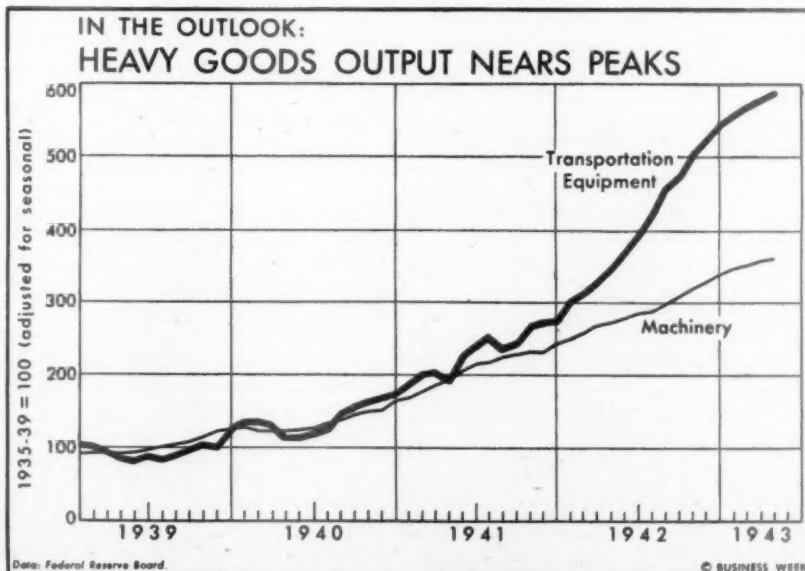
As a matter of fact, despite WPB's recent moves to expand manufacture of such items as iceboxes, alarm clocks, pressure cookers (page 36), and radio tubes, and the increasing attention being paid to the need for upping quotas

on other hardware and household equipment, the aggregate supply of goods for civilians is still declining. Even the turn in trend is not yet in sight.

In the first place, WPB's total allocations for consumer "hard goods" were reduced in the third quarter from the second-quarter level. Even were total new durable production increased, market supplies would still be lower than formerly; distributors until now have been able to drain their large inventories of refrigerators, hardware, repair parts, etc., but cannot do so any longer. Further, the civilian's share of the more important group of "soft goods"—food, textiles, apparel, fuel, beverages, etc.—is still dropping.

Emphasis on Curtailment

One example is the new cut in gasoline rations, which may be extended further over the nation. In addition, a nation-wide dimout to save coal is being talked about, and the supply of oil and coal for heating may well be worse next winter. Also, three weeks ago, Donald Nelson spoke of the imminent possibility of clothing and textile ra-



Here is one more indication that war production is beginning to flatten out. In addition to machine tools, farm implements, and other productive equipment, the machinery index also covers many ordnance, electronic, and other war items—and the transportation equipment index includes output of ships, planes, tanks, and other armament. This approach of munitions production towards its peaks points up the current tendency of total in-

dustrial production to stabilize. Since Pearl Harbor, gains in these two heavy-goods manufacturing lines have accounted for almost all the increase in industrial production indexes. So far this year, increases in both machinery and transportation equipment output have run at little more than half the rate of the preceding year, and probably by the fourth quarter of 1943, month-to-month gains will become negligible.



CONVERSATIONAL COMA

Having mulled over the issues for months, John L. Lewis and the soft coal operators slipped last week into a lethargic deadlock. There seemed to be nothing else to talk about; one op-

erator commented: "We just sat and looked at each other." But this week the heat was on. Their strike truce ended, the miners walked out of the pits again. Negotiations snapped to life. Lewis and the operators began pushing for a quick settlement.

tioning. And civilian food supplies are still contracting.

For instance, total domestic fats and oils for this year are figured now roughly at 11,000,000,000 pounds, 1,000,000,000 less than last December's estimate. The canning industry is concerned about obtaining its huge seasonal manpower needs this summer. Again, glass container manufacturers are finding demand running 20% ahead of production, and WPB may have to curtail packaging use for soft drinks, beer, and liquor. Further, distillers may not be permitted resumption of whisky production, even if alcohol needs are met, because of the tightness in grain supplies, which may be aggravated by the recent floods in the Midwest. Indeed, if crops do not recover, meat and dairy production will be markedly affected (page 14).

Needed for War

In the outlook for civilians, all the deepening difficulties in the way of production—manpower, materials, weather, price-cost problems, etc.—constitute but one side of the problem. The other side covers the increasing requirements of the war economy, not only for direct military use, but also for lend-lease aid to our Allies and to the peoples whom we succeed in liberating. The possibility of increasing civilian supply by release of resources from direct military use is still questionable and somewhat remote. But the one substantial certainty for decreasing civilian supply will be the mounting needs, not only of food, textiles, drugs, etc., but also of such durable items as railroad, power, sanitation, and other equipment for the liberated lands of Europe.

Bread or Bacon?

We can't have both. If we feed grain to record number of hogs, there will be too little for baking. It's up to Davis.

Chester Davis is facing his hour of decision. The War Food Administrator must decide whether it will be bread or bacon, and the decision will affect the butcher, the baker, the aluminum foundry, and every household in the land—plus the citizens of Bulgaria ultimately. Davis' success or failure as czar of wartime food supplies may depend on whether he can summon the courage to make an unpopular decision to cut down the livestock population—the nation's meat supplies.

Here is the simplest way to state the situation: If you were caught on a desert island with a shoat and a bushel of wheat as your only food supplies, what would you do—feed the wheat to the shoat and then eat it, or kill the shoat and eat the wheat separately?

• **Problems Involved**—Davis' decision, of course, is not quite that simple. The present record hog population is the result of past Agriculture Dept. pressure on farmers and production policies. Attractive floors have been placed under hog prices; current ceilings bring lush returns to farmers. Other livestock prices also are good.

Any deliberate government effort to cut down production of meat animals would be attacked from two sides: (1) farmers who want to maintain high re-

turns from livestock; and (2) the milking U. S. public which never will understand the intricate reasons and complex relationships behind such a move—particularly since the government's wartime food public relations policy to date has failed to prepare people for the dilemma now faced by Davis.

• **More Than Food Involved**—Industry, meanwhile, has much at stake. The corn grinding industry, which makes everything from dextrose to the kind of starch used in making aluminum powder for war machines, has been forced to reduce production in recent weeks between 50% and 70% of capacity. Inability to buy corn in the open market forced the reduction. Further reductions are inevitable unless Davis channels corn into this industry which furnishes vital raw materials for a section of the nation's industrial and food economy.

Shortly after Davis became food administrator, he tided the industry over a similar corn crisis by a series of paperwork moves. Now he must face the basic problem: Corn fed to hogs brings the farmer a return of between \$1.40 and \$1.50 a bushel, but corn sold on the open market can bring only the ceiling price of \$1.08.

• **Wheat Won't Answer**—The situation is critical all along the feed front. Mar. 26, the Commodity Credit Corp. began sales of 100,000,000 bu. of wheat which Congress had diverted to other purposes at a minimum price of parity. By May 31, this supply was virtually exhausted.

Matched against the general wheat supply outlook, this means that the ration cannot continue to gobble up wheat for feed and alcohol (the base of explosives and synthetic rubber) and hope to meet what might prove to be astronomical foreign relief demands. Even the Agriculture Dept., which always has painted a rosy wheat picture, was forced to admit that, if we use the same amount of wheat in the year 1, 1943, to June 30, 1944, that we use in the current crop year, we shall be up with only a 300,000,000-bu. surplus over prior to next year's harvest. And there should be a 1944 crop failure, supply wouldn't even meet home needs.

• **Effect on Dairying**—The feed shortage also affects the dairy situation which plays such a big part in the nation's domestic dietary plans as well as in foreign relief. At home, the dairy situation is so critical that: (1) Rationing of evaporated and condensed milk has been ordered this week to protect supplies of these products for babies; (2) regional rationing of fluid milk has to be tried in at least a half-dozen areas in the near future.

The feed shortage also may be dried skim milk out of bread which plays an important role in the diet.

Poised for the Big Push

No matter where the blow lands in Italy, strategists agree that it will prepare the way for a drive on Hitler's Balkan flank, with Belgrade and Budapest next on the schedule.

The next great turning point in this war is approaching.

Some time within a few weeks the United Nations will breach the walls of Hitler's European citadel—perhaps at several points.

Inevitably, the loss of life in these frontal assaults will be appalling—in some spots because the toe hold is too minute, the strategic odds too heavily against us. But some spots we shall hold and enlarge, and from them Axis Europe will be systematically strangled.

● **Strategy Clear**—There can no longer be any doubt of United Nations strategy. Its broad outlines were determined long before the Roosevelt-Churchill conferences which ended last week.

Last winter's persistent drive to clear the Axis out of North Africa had three main objectives: (1) to cut off the Axis from vital African supplies, (2) to reopen the short Mediterranean route to the Middle East and India, and (3) to provide bases—for planes, men, ships, and supplies—from which to launch one or more attacks on Europe from the south. The pattern was neatly unfolded more than a year ago by Col. W. F. Kernan in his book, "Defense Will Not Win the War," when he called for a bold campaign along the bleak south

shores of the Mediterranean to provide the springboard for an offensive against the Axis through weak and disgruntled Italy.

● **Won't Waste Time**—It is plain that London and Washington intend to waste no time tackling this new job. Mussolini's vaunted "Little Malta," the heavily fortified island of Pantelleria between Tunis and Sicily, already is suffering the full brunt of Allied aerial attack, probably with little of the determined fortitude that the real Malta showed under two years of withering Axis bombing.

Sicily, only 90 miles northward from Tunisia, is being smashed systematically in 400-plane raids, and Sardinia's terrified population is fleeing to the hills. The soft spring sunshine of the Mediterranean is lost behind the flaming spirals of smoke rising from the rubble of Mussolini's island cities, and the whispered reports of convoys steadily steaming past Gibraltar into the Mediterranean strike terror into the Italians of the coastal cities, for they know that neither their fleet nor their planes are a match for those of the enemy.

● **Strike at the Heart**—Some analysts declare that the United Nations, when they are strong enough to stage their

tion short of protein. The Food Distribution Administration's bread order requires bakers to use at least three parts of milk solids to every 100 parts of flour in white bread.

Davis can't meet the situation by simply issuing an order cutting down the livestock population. Properly handled, the situation requires a number of intricate government steps that affect the whole field of food production, processing, distribution, pricing, and rationing. Davis will not be able to meet the situation unless (1) he is given complete food pricing and rationing control, or (2) the OPA mechanism completely subjugated to his policy directions.

Davis Opposes Subsidies—While Davis was facing this critical decision, the Administration and OPA sought to appease labor by instituting a price rollback subsidy on butter and meat. From Davis' point of view, the extension of this policy to unrationed commodities would amount to subsidization of shortages—encouragement to consumers to buy more of the very products whose prices should be discouraged.

Shakeup in Order?—Eventual recognition of the complexity of the food crisis facing Davis may force War Mobilization Director James F. Byrnes to centralize food pricing and rationing authority in Davis. Congress already has indicated it would back up such a move. With the Administration and Congress miles apart on the fundamental principle of subsidization of food prices, Davis may be the only man who can bring the two together.



en. Cotton Ed Smith (above) and Senate subcommittee on food last week juggled one of Washington's hottest political potatoes—the subsidized rollback. Theirs was the unhappy choice of making farm enemies recommending subsidy appropriations to a hostile Congress or making

White House enemies by killing the idea. Jesse Jones (above left), whose Reconstruction Finance Corp. would pay the bills, is only lukewarm to the subsidy idea that would cost an initial \$400,000,000 and would cut living costs only about 1%. Food boss Chester Davis (above right), however, is

completely cold, holding that decreased prices would encourage buying and upset the already precarious supply. Even more bitter are the prospective recipients—processors and packers. But they probably all will have the problem resolved for them by OPA's shift to appeasement (page 17).

attack on Mussolini, should head not for Palermo, Messina, Naples, and Livorno, but lash boldly at Genoa, Milan, and Turin—in the industrial heart of Italy, without which Rome could stage little more than a short, losing struggle. The rest of Italy, they insist, would collapse without a struggle if communications with Berlin were severed south of the Alps. At the same time, a connection could quickly be established with France along the very Riviera border where Italian troops in 1940, on orders from Mussolini, stabbed France in the back. Along this route, the Free French forces—now rapidly being reorganized and equipped in Tunisia and Algeria—could push up the Rhone valley toward Lyon and Paris.

But wherever the blow may fall on Italy, there are few strategists who fail to see in it the first move to flank Hitler in the Balkans and prepare the way for a two-pronged United Nations drive on Belgrade and Budapest—one prong driving across the Adriatic from Italy through Yugoslavia (where it would be welcomed by Gen. Mikhailovitch, the unconquered Slav War Minister), and the other striking north from Turkey—which is expected to join the United Nations before July—and heading across Bulgaria and through the vital Rumanian oil fields before turning west up the Danube to join Allied forces at Belgrade.

● **Need Steady Supplies**—Cleaning up the Mediterranean supply route is necessary before this eastern drive can be opened, for its success will depend on a steady flow of supplies from Britain and America. And while the oil for fleet operations and for tanks and trucks in this drive can come from Iran and Bahrein

through the Red Sea, and from the Mosul fields by pipeline to Palestine and Syria, the drive still must depend on American and Caribbean oil refineries for its high-octane aviation gasoline.

Moscow's complacent attitude toward Nazi armies now massing in the Crimea and on the Kuban peninsula bespeaks confidence that an Anglo-American drive in the Balkans will develop first and that the very threat of it will force the Germans to withdraw men and equipment to protect the Balkan flank. The race now is to see who can strike first and hardest. Skirmishes along the Russian front in the last few weeks are feints. How quickly the Allies can launch their next Mediterranean move will determine whether Hitler tries one more blitz offensive against the Caucasus.

● **Other Drives Ahead**—The great drives just ahead will not be confined to the Mediterranean. Norway will be freed, but whether London has decided on a frontal attack or on some minor skirmishes while the major thrusts are made through Denmark, Holland, or France remains a question.

Freeing Norway would remove 1,300 miles of potential fueling havens for Nazi submarines, cut off the winter delivery route for Swedish iron ore, remove the worst threat (from Nazi-held airfields in northern Norway) to the supply route to Murmansk—now little used but important again if Finland is to be pinched out of the war; it would pave the way for Swedish entry into the war, provide the United Nations with airfields from which such Nazi industrial centers as Hamburg and Bremen could be blasted, and clear the way for naval



BREWSTER BOMBERS

Flying for the Navy in ever-growing squadrons are Brewster's Buccaners (SB2A's), two-seater dive bombers reported to be the world's best by British pilots who fly their counterparts. Brewster's low output of needed Buccaners was the principal reason for the concern's second set of management and the drafting of Henry J. Kaiser to try his hand at boosting Brewster production (BW—Mar. 27 '43, p. 28).

aid to support a thrust against Denmark on Germany's North Sea coast.

● **Urge Assault in Denmark**—But some bold strategists insist that nothing more than feints should be made in Norway and that the real breach should be attempted in Denmark where the "wall" is believed to be weakest.

The route over which the climactic invasion ultimately is likely to pass leads straight from England to Dunkerque, Calais, and Dieppe. Though it reputedly has been made impregnable, it is still the shortest route to the continent. It can be supported by intensive fleet concentrations, an umbrella of planes, and a barrage from Dover's chalk cliffs.

● **Allies Poised**—The men are poised for these lunges at Hitler's stronghold. Britain is bulging with supplies—first block-buster bombs and mountain machine guns to caverns of gasoline and great dumps of canned food.

Roosevelt and Churchill last week wrote their O.K.'s on only the final details of the summer's momentous plan for the pattern was drawn up months ago at Casablanca. How many thrusts will be launched at once, where the pressure will be greatest, exactly when the timing will be—these will unfold with the summer.



FAST WORK

By quickly bypassing a flood break in Big Inch with a 7½-mile emergency pipeline, repair crews averted disaster in an already critical oil situation

(page 26) last week. The new section, laid above ground (above), bridged a gap ripped in the line by rampaging Arkansas River waters at Little Rock. Working around the clock, trouble shooters made the repair in four days.

OPA Turns Kindly

With the "resignation" of Galbraith, policy will be one of easing business and farmers. Strict orders to languish.

Now that the hold-the-line order is dead, OPA is primping itself for a new romance with business men and farmers. Deputy Price Administrator Kenneth Galbraith, whose tough-guy attitude antagonized industry, has been fired. His job has been split up among successors who have a record of working smoothly with the Dept. of Agriculture (and farmers), and with WPB and industry.

For the rest, Prentiss M. Brown is ordering every OPA price chief to check his industry advisory committee for advice and representation and hereafter issue orders only after the committee has been consulted and presumably satisfied.

Why Galbraith "Quit"—Galbraith was fired just as quickly as his idol, Leon Henderson, and for the same reasons. Once the hold-the-line order lapsed, Galbraith's usefulness was deemed at an end. His continued presence at OPA would have meant more and more rubs with Congress, would have endangered appropriations, and could have cost votes among farmers and merchants. So, within a couple of hours last Monday, a quickie "resignation" was cooked up.

Stories that Galbraith's exit is a personal victory, engineered by Lou Maxon, Brown's right-hand man, are true only in a symbolic sense. The two had been at loggerheads for months, Galbraith representing stringent price-control and Maxon favoring leniency. But this clash was too parochial to result in Galbraith's ouster. The strike in the coal mines and the obvious impossibility of keeping down living costs without real subsidy money, taxes, and price-policing sent the Administration back on its old back-appeasement—which is strictly out of Galbraith's line.

Not too Tough—Austin C. (Oscar) Hoffman takes over the food half of the lanky Princeton professor's job. Hoffman is a onetime Dept. of Agriculture man (Bureau of Agricultural Economics), on good footing with Chester C. Davis, War Food Administrator. His record at OPA, where he originally had charge of food prices, has not been one of toughness.

Prospects are that Hoffman will make few moves without consulting Davis, and that—all in all—the proposed rigid control of food prices will be relaxed on the grounds that production and distribution are stifled under

iron-bound control. Significant, too, is the fact that Davis is no advocate of big subsidies.

Wallace Gets the Rest—The rest of Galbraith's job—all other prices except food—has been handed to Don Wallace, heretofore director of the Industrial Manufacturing Price Division. Wallace is a former Harvard and Williams economics professor but has managed somehow to escape the academic stigma. His record at OPA is that of a thorough, likeable plugger, trusted by all of OPA's factions.

Meantime, Lou Maxon seems to have clinched the general manager's post. This position entails control of practically all of OPA's personnel and means that Maxon will have a potent influence on OPA policy. Maxon's views on policy matters are no secret—he wants to fire the professors, simplify price-control, and run OPA largely as a cooperative venture between government and producers.

Changes Baffle OPA Chief—Brown, by nature, is suited to work with a setup of this type. But he has expressed no joy over his prospects. The fight between Maxon and Galbraith left the sensitive Brown exhausted. Furthermore, the rapid shift in orders from the White House was disturbing to him. First he had to radiate sweetness and light when he stepped into Henderson's place. Then he had to play tough when John L. Lewis starting acting up. And now he has to backtrack once more.

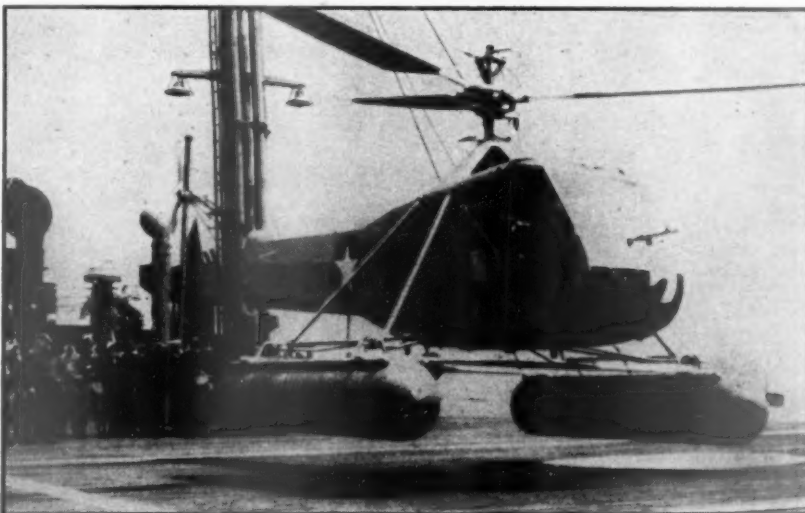
Brown's closest associates believe he will resign as soon as OPA's appropriation is passed by Congress. But whether he can take this easy out will depend

ultimately on one man: the President. **Strict Orders to Wilt**—What will happen to OPA's recent, much stricter price regulations when the wooing of industry, farmers, and Congress begins is hard to forecast in detail, but not as regards ultimate effect: There is bound to be a relaxation. The subsidy on butter (the first of three subsidy programs on butter, meat, and coffee) is slated to start June 10 and is intended to roll back the retail price 5¢ to 6¢ a pound.

In all probability, the program will actually get under way. But the headaches it will involve (all federal milk-marketing agreements have to be rewritten so that the pegged butter prices won't unduly depress fluid milk prices) could sour the meat and coffee programs. Subsidy opponents will be quick to label the butter venture a flop and to see that the expansion of subsidies will be extremely small or none at all.

Serves as a Reprieve—As for the rigid community ceilings and the squeezes on middlemen (used notably in the case of potato pricing), these can readily be revamped when OPA joins hands with farmers and industry. This business-government union, incidentally, may forestall a congressional move to split up OPA and to hand pieces of it to the Dept. of Agriculture and WPB.

Hopes and Dangers—Business speculation and public overbuying—both induced by a tilted price-structure—are continual, potential pitfalls. But business men like to bank on two hopes—a heavy sales tax (to discourage overbuying) and much bigger civilian production as the Administration's last trump if inflation gets too bad.



HOVERING PROTECTORS

American and British shipping authorities now believe they can lick enemy submarine and plane menaces by carrying aircraft aboard merchant vessels (BW—May29'43,p76). But the

United States is adding a new twist by using helicopters. Convinced in recent tests that the wingless plane can operate from a 20-ft. square aboard ships, Adm. Howard Vickery revealed that Maritime Commission boats will be fitted with helicopter flight decks.

Water Peace?

Colorado River states now seem in a fair way to settle the old row over which will get flow from Boulder Dam.

For 21 years, while the U. S. government has harnessed the mighty potentialities of the Colorado River in the half-billion-dollar Boulder Dam system, lower states in the river basin have fought over the pent-up water. The bitter interstate dispute is explained by the fact that, in the arid Southwest, no large farming, industrial, or communal development is possible without large use of water. Arizona, insisting that proposed allocation of water hopelessly shackled its future, has remained until this day out of the Boulder Dam Compact, signed by six states in 1927.

• **Settlement Comes Nearer**—At Denver last week, the advisory committee representing the basin states seemed closer than ever before to getting Arizona into partnership. The committee's function is only advisory to Interior Secretary Harold L. Ickes, who administers the compact, but in the past, he has conformed closely to its views.

Arizona has been torn for years between an adherence and a nonadherence party. Right now, the adherents are on top, led by Gov. Sidney P. Osborn.

This spring's Arizona legislature stated, in effect, that if a contract to Arizona's liking was proposed, the state would join. Promptly the committee

got busy. The four upper basin states—Colorado, New Mexico, Wyoming, and Utah—and Nevada of the lower basin voted either to concede Arizona's claims or to leave them for friendly discussion later.

Holdout is California, which has always frankly bid for all the water it could get for Southern California.

• **Possible Solution**—The river (excluding the Gila, a tributary entirely within Arizona) normally produces about 16,000,000 acre-feet yearly, nearly 15,000,000 feet of it from the mountainous upper basin. The four upper states are bound by the compact to let down an average of 7,500,000 acre-feet yearly at Lees Ferry, retaining the rest for themselves. In the lower basin, the permanent contract picture begins to look like this:

California—4,400,000 acre-feet annually from the river, plus one-half of whatever unappropriated surplus comes down.

Arizona—2,800,000 and one-half the surplus.

Nevada—300,000 acre-feet and $\frac{1}{2}$ of the surplus (taken from Arizona's half).

• **Dispute Over Gila**—This doesn't count the Gila's million acre-feet. Arizona doesn't want to include this in its stated share; California insists that it be included. Another dispute for future settlement is whether Arizona should pay cash for part of its water as California now does.

All the states, however, want to become a united group to present a close front when the question arises, as it will sooner or later, of how much water must always be let down to Mexican farms and cities.



SERGEANT'S HELPER

In the modern Army, even the leather-lunged sergeants are helped with electrical equipment. Powerful amplifiers, operated by portable public address

systems, go with soldiers into the field—to maintain contact between officers and men. Thus when American troops landed on Japanese-held Attu Island (above) recently, loud-speakers kept operations flowing smoothly.

New Frontiers

Summer camps welcome and with bulging enrollments the rigors induced by rationing of food and travel.

Expectations that summer camps faced with the rigors of war—food rationing and inaccessibility under defense transportation restrictions—will take a well-earned vacation for themselves this year are dissolving. In general, camping groups welcome rationing, transportation difficulties, and the manpower problem as a real challenge to their capacity for the frontier life.

• **Big Summer Ahead**—Actually there will be more boys and girls between the ages of 7 and 15 in camp this summer than at any time since predepression years. Inquiries to the New York Times Camp Service Bureau are running 57% above last year to date; many expensive eastern camps stopped advertising the middle of May because of capacity enrollments. Normal June is the heaviest promotion month for camps, most of which open about the first week in July.

The boom is not limited to the fashionable private camps. Registrars for Boy Scout, Girl Scout, Y.M.C.A., Y.W.C.A., and church camps are higher than ever.

• **Boarding Camps Preferred**—Day camps have been promoted by plant personnel directors seeking to relieve working mothers from concern over children, and public schools have established such camps in war industrial areas. But in most cases transportation to and from such camps has proved to be such a problem that war plants now recommend medium-cost or low-priced boarding camps for children and their women workers.

While children of working mothers probably account for the biggest portion of the increase for all kinds of camps, according to camp directors the ranks are swelled also by youngsters who usually spend the summer at family summer homes which are not being opened this year because of the scarcity of servants and gasoline.

• **Charity Camps Swamped**—Charity camps, more than 200 of which serve the New York area, still are unable to take care of all applicants. Such camps sponsored by various churches, the American Legion, Masons, Rotary, Kiwanis, Life magazine, and the New York Herald-Tribune accommodate 100,000 New York City boys and girls annually. The program and activities are not distinguishable from private and organization camps except for extra milk available to nonprofit camps.

through a program of the Food Distribution Administration.

The Office of Defense Transportation allows camps one special trip per season from camp and nearest transportation when no regular facilities exist, and camp directors are entitled to B gas ration cards. Only in cases where distances from railroad and source of supplies make operation impossible have camps been obliged not to open for the 1943 season. Others have resorted to horse-drawn covered wagons and chuck wagons.

• **Junior's Ration Book**—Camp directors assure parents that children probably will fare better nutritionwise at camp than at home since under General Rationing Order No. 5 camps are classified as institutional users and as such receive 60% of last year's consumption, as do restaurants, with supplemental allotments for increased enrollments. Those with smaller registrations collect campers' ration books. The Boy Scouts of America has prepared its campers by distributing a special 15-page bulletin explaining everything from what to do about ration-banking to how to persuade parents to part happily with Junior's ration book.

Camps have had no more luck than any other industry in solving the manpower problem. The U. S. Employment Service, urged by the American Camping Assn., resumed its camp personnel service, but on a limited scale. In New York, USES will accept only three applications from each camp—probably around 7,000, when camps would like to place twice that many. Most counselors used to be college students. This year many will be over 50 and more will be between 16 and 18—an age group from which a good many campers used to come.

• **Short Staffs**—Despite doubled salaries most camps will operate with drastically reduced staffs this year, and increased responsibility will be placed on campers. July probably will see campers whose board runs to \$500 a season doing K.P. duty—which is routine for the camp with rates of \$15 to \$17.50 a week—for camps find kitchen help just as scarce as professional.

Camp rations were supplemented by Victory garden produce last year. This year hardly a camp will be without one. Some camp directors took care of spring planting, and some look for a surplus which campers will help to can and take home at the end of the season.

• **Help in Harvest**—This is not the campers' only contribution to the food supply. Last year in agricultural areas farmers hired large groups of campers to harvest crops—notably Maine string beans—from time to time with such success that farmers, camps, and the Farm Manpower Service are urging more of it this year.

Silver—at a Price

Washington sees strong chance of Green bill's passage; measure would allow Treasury to sell metal at 71.11¢ an ounce.

Passage of the bill to make available much larger quantities of silver for war industry now looks quite possible, perhaps within a month. Enabling legislation, the Green bill, has the blessing of War, Navy, and Treasury departments. Even western silverites, wily to the last, will agree—at a price—and proponents insist the bill will even go so far as make the white metal available outside war industries.

• **Quite a Comeback**—Only politics, war, and the vast buying power of the Treasury in combination have been able to bring silver up to its present enviable position. The metal sold as low as 24½¢ during the depression. Congressional and Treasury propping were required to bring it back.

For a long time now the market has been 71.11¢ an ounce on domestically mined metal; for foreign silver, the price was supported at 35¢ by U. S. purchases until war demand ran it up and OPA slapped on a 45¢ ceiling. WPB has had to dole it out to essential industries even at the higher price.

• **Bloc Dictates Price**—Now the Green bill would permit the Treasury to sell from its vast hoard—but the silver bloc insisted on the domestic price of 71.11¢. (Heretofore, the Treasury was permitted merely to lend this silver for the duration, and that in relatively miserly quantities.)

The effect of Treasury buying of all domestic silver at 71.11¢ has been to confine private purchasers to dwindling import supplies. This was the work of the silver bloc in the Senate—a group called by its enemies “twelve senators against the nation” and led at present by Senator Pat McCarran of Nevada. (Idaho, Texas, Montana, Colorado, Arizona, and Nevada led in production in that order in 1941.)

• **Some Could be Used Up**—The Green bill would permit Treasury silver certificates to be backed by silver bullion and other equipment, thus putting Treasury bullion not required for coinage to work in essential industry. Heretofore, the loaned silver could not be employed where it would be used up; the bill would permit either consumptive or nonconsumptive use, but the nonconsumptive would have to be great enough to cover the silver certificates.

The plan to lend 1,000,000,000 oz. of free silver to Defense Plant Corp. was put into effect by the Treasury a year ago. As of May 15, this year, 699,000,000 oz. of this had been allocated, of

which 560,000,000 were actually in use.

• **This Year's Needs**—The War Production Board estimates that 139,000,000 oz. will be needed by the war effort this year. In addition, probable foreign requirements (such as England's hope of getting 15,000,000 oz. for Indian coinage) and possible increased demands for war and nonwar uses may raise this total to between 210,000,000 oz. and 260,000,000 oz.

Essential industrial consumption now runs to 9,000,000 oz. a month. But imports, which alone are now available to industry, currently are running only 5,000,000 oz. a month. Of the Treasury's “silver ordinary” (the trace of silver recovered in refining gold bars, from melting old foreign coins, etc.) and stocks of the Metals Reserve Co., less than 2,000,000 oz. remain for allocation to industry.

• **Most Necessary Users**—Big essential industrial uses of silver are for brazing alloys and silverclad metals and for the manufacture of electrical contacts and engine bearings. Silver is also used in lead-silver solder, for photographic and chemical purposes, and in electroplating.

In addition to such essential uses, there's still a big demand from the decorative industry. The Big Ten in the decorative arts industry are converted almost 100% to war work, but thousands of smaller fabricators want raw material so they can keep open. WPB estimates their needs for 1943 at 30,000,000 oz. The industry as a whole used 22,500,000 oz. in 1941, 45,300,000 in 1942, and could use 51,000,000 oz. this year if available. A WPB order limits decorative arts to 50% of what they used in whichever year was bigger—1941 or 1942.

• **Home Production Cut**—Recent peak was about 70,000,000 oz., but it may be only 45,000,000 this year, largely because of labor shortage and the shutdown of mines that don't have important base metal output along with their silver. Imports, which have averaged 100,000,000 oz. over the past decade, have been cut to about 60,000,000 oz. because Britain is taking the Canadian output. Mexico—which usually supplies 70% of our imports—is curtailing exports by 18,000,000 oz. this year because production is off and because the republic must make coins for home use. (Some of our imported silver has come through London from Japanese stocks stolen and smuggled out of China.)

Treasury silver falls mainly into two classes: “free silver” which can now be sold only at \$1.29 a troy ounce (world price 45¢) and “monetary silver” held as dollar-for-dollar reserve for silver certificates. These groups total more than 2,400,000,000 oz. Altogether the Treasury has 3,326,513,412 oz., exclusive of what may be going through the mints—which are working 24 hours a day.

Famine in Steel

Expansion program only one-third completed; the hungry munitions facilities will make demand insatiable.

Contract cutbacks and the current famine in steel result in large measure from unbalanced facilities expansion, from providing too many factories for the materials available. But another big factor is the failure of the steel expansion program to come through on schedule. The 10,000,000 tons of additional steel capacity laid out last year was supposed to be in full operation this month. Actually, only about 3,000,000 tons is in production, and the full program won't be complete until next February.

● **Upshot is Unbalance**—The rub is that steel-consuming factories are already built. There have been enough of these for nearly a year, with the exception of other raw material expansion, shipping, and the synthetic rubber and 100-octane gasoline programs. The upshot is unbalance, with more steel-consuming capacity than steel.

Trade sources predict that 1943 production will be 90,000,000 tons. But this won't be enough to satisfy the Army and Navy. What they got for the third quarter of this year was 40% under their bill. Over-expanded munitions facilities will make demand insatiable.

● **How it Adds Up**—This is the way the expansion picture adds up now. New openhearth capacity in operation is 2,083,000 tons with 4,873,000 tons still to come in. New electric furnace alloy capacity now in operation totals 953,700 tons on an annual basis with 1,604,200 tons still to come. Added pig iron capacity in operation is about 4,500,000 tons with 7,000,000 tons more in the works.

Reasons for the delay are: (1) The synthetic rubber, 100-octane gasoline, and aluminum programs were put ahead of steel for strategic reasons, (2) the steel companies, in the opinion of WPB, were reluctant to expand.

The rubber and gas programs are about completed now, so steel expansion should proceed more rapidly in the rest of the year. Already planned, however, is a new 100-octane program as large as the first.

● **Fear of Market Glut**—The steel industry's original reluctance to expand resulted from fear of glutted postwar markets and belief that present capacity was adequate. The industry did not exactly do a leisurely job, but it did not strain to the utmost.

Steel production will not be increased by the 48-hour week ordered by the

War Manpower Commission (BW—May 8 '43, p. 90). The industry already is operating in some cases in excess of 100% of capacity. The only result of the order, if enforced, would be the displacement of an estimated 50,000 workers.

The industry has lodged with WMC a vigorous protest against uniform application of the order, claiming that it will result in featherbedding when workers are employed in operations that only involve one shift of work.

● **WMC's Compromise**—Faced with a conflict between the steel labor union and the steel companies over exemptions from the 48-hour week order, WMC this week came out with a compromise giving the companies most of what they asked for—but balancing it with a promise to let the unions be heard on any specific exemptions.

The instructions issued to WMC regional directors postponed the effective date of the 48-hour week order from July 1 until Aug. 1. Minor exemptions to clerical workers not in general mill offices are granted.

● **Labor Weighs Exemptions**—The new instructions provide that WMC regional directors must "consult" with labor representatives before any other exemptions are granted. Factors that would entitle a company to apply for exemption are: production requirements, WPB orders

limiting production, failure in the distribution of materials, or any reason beyond the control of the employer. Labor's unique new grant of power leaves steel companies doubtful that they will obtain much relief under the order.

Steel executives claim that in the event exemptions are not freely granted, payment for standby time for work not done will make costs prohibitive under OPA ceilings and thereby make it impossible to produce certain items at present prices except at a loss.

Apparently, the only steel plant that has gone on a complete 48-hour week is the National Tube Co. works at Lorain, Ohio. Local WMC officials are pointing out that the industry can go on a complete 48-hour basis according to the National Tube experience. In this case, there has been no actual reduction in the number of employees, and requirements for new help are still substantially above supply.

● **Lend-Lease Factor**—Tending to tighten the steel situation are lend-lease shipments of raw steel, which will be 6,500,000 tons in the next 14 months, plus an equal amount in manufactured arms such as ships, tanks, locomotives, and planes. Russia is looking for a bumper shipment of 3,000 locomotives this year. This is three times more than WPB allotted for domestic use.

Construction, which took 20% to



A BETTER RAT TRAP

Now produced under priorities is a new electrical rat trap that catches and electrocutes the wily rodent, drops the body into a disposal box, and then resets itself. Invented by two engineers, C. M. Stanton (left) and W. J.

Vincent (right), the device operates on 110 v., using an electric eye to shut the gates, a timer to administer the lethal shock. Stores, hospitals, and apartment houses already are using the trap, according to its producer—Rochester Automatic Trap Co. (65 Monroe Ave., Rochester, N. Y.)



Many Skills Combine in Ryerson Steelmanship

• Many skills and complete modern equipment for testing, cutting, forming, handling, shipping — all combine in **Ryerson Steelmanship**. All are devoted to the single purpose of this vast highly specialized steel warehouse system. All contribute to the job of getting the steel you want — in the quality, form, size and place — exactly when you want it. • True, there

are our war problems of shortage here and there, but most generally Ryerson Steel-Servicemen can take care of you. • Whether it is a question of selection, fabrication or just quick delivery—*call Ryerson first*. Joseph T. Ryerson & Son, Inc. Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Philadelphia, Boston, Jersey City.

How Long Does an Echo Echo?



Some echoes rebound for some time, others quickly fade—it depends on how loud and long you've shouted.

But loud or not, *echo-power* is not enough to keep *your* trade name reverberating for the duration. You'll need some more substantial means of postwar sales insurance.

And one particularly good "means" is—The Blue Network.

Thanks to efficient, coast-to-coast coverage and successful audience building...the BLUE can carry your message into *more homes per dollar* than any other national advertising medium.

Remember, "Goodwill...\$1" is the biggest dollar on your balance sheet. Protect it with broadcasting advertising—on the BLUE!

Have you seen a copy of our Daytime Listening Study?



The Blue Network

A Service of Radio Corporation of America
NEW YORK • CHICAGO • DETROIT
HOLLYWOOD • SAN FRANCISCO

24% of steel supply in 1942, may be cut down to a quarter of that amount this year. On the other hand, some unavoidable bungling on the part of the Army will waste steel. Examples of last year's bungling are the 155-mm. self-propelled guns (which proved too sluggish), 20-mm. antiaircraft guns, and 30-mm. antitank guns (which proved too light). The Army has shut off production of these weapons but did not do it until thousands had been made. It is reliably reported that millions of projectiles for these guns have been made and stored in arsenals.

• **Shell Loading Behind**—At one time, the Army was seeking and getting nearly 100,000 tons of steel for ammunition monthly. Cutbacks ordered by the high command have reduced this to one-third, but shell making continues to exceed loading by several hundred percent.

A bright spot is about 1,000,000 tons of alloy steel which will be available next year as a result of the cut in the manufacture of machine tools.

World Granary

Plan of British delegates would set up an international "Joseph plan" for marketing all agricultural products.

Henry Wallace's Joseph plan—save in the seven flush years for the seven lean ones—is now getting an international hearing. What the British asked for at the Hot Springs food conference would be, in effect, an extension of our ever-normal granary to warehouse and distribute the crops of the world as needed for food.

• **Start Made in Wheat**—There have in the past been repeated efforts toward an international wheat pool. (The problem of wheat always looks simpler than any other because there are only four important surplus countries—United States, Argentina, Canada, and Australia—and the need is obvious because wheat so generally is in oversupply.) Finally, a very small-scale start was made a year ago when the four surplus nations set up a pool of 100,000,000 bu. for intergovernmental relief in war stricken areas.

Britain's plan, of course, goes much further, because it would cover virtually the entire range of nonperishable foods. Presumably, it could serve to establish patterns of trade and of international co-operation far beyond the emergency feeding period that will coincide with release of conquered peoples.

• **Price-Raising Function**—The Joseph plan has been tested through a decade in this country. Launched as the ever-normal granary (called by political doubters the ever-normal quandary, and ac-

curately described through much of its existence as the ever-bugling granary, the program was designed to even out and raise—prices received by the farmer for major food and fiber crops.

Farmers are entitled to pledge invested crops against government loans (money is lent either by the government or by banks on government guarantee) and to pay off the loans whenever they get ready to market the pledged produce. The government may call the loans on due notice, and then federal authorities take title to unredeemed collateral.

• **Activities Snowball**—The Commodity Credit Corp. was created as the agency to handle the granary. In 1938, the program was integrated with soil conservation, crop control, and crop insurance. CCC loans and purchases to date have totaled \$6,000,000,000, \$2,000,000,000 of this being for farm commodities purchased for lend-lease during the last two years.

Economists differ as to the degree the price-raising and price-stabilizing effects of the granary, but they agree as to the value of having accumulated supplies in years of plenty—if the accumulation doesn't grow into a white elephant. Nearly 268,000,000 bu. of 1935 crop stored under government loan proved a valued backlog of livestock feed during the 1934 drought. Drought struck again in 1936, and again the loan stocks helped make up the deficit. But this was



HERE'S HOW

Mrs. Elizabeth Bird is one of the very few American women who tells gourmet what wines to drink with what foods. Publicized as the only female wine steward in New York, she holds forth at the Algonquin Hotel, filling the shoes of its veteran sommelier who became ill recently. Francine, as she is known, was 22 years a waitress.

The "power" behind our War effort — and *how life insurance helped produce it!*

FROM THOUSANDS of busy factories all over America, the sinews of war are flowing toward the battle fronts in a mighty, ever-growing stream.

The "power" behind these factories—the energy that permitted this country to become, almost overnight, one vast arsenal—is electricity.

For no other nation in the whole wide world enjoys so widely the industrial benefits of electricity. Moreover, in more than 80% of all dwelling houses, on more than 40% of all farms a flip of a switch brings conveniences undreamed of fifty years ago.

How did the vast electric power system that makes this possible come about? Through American initiative and enterprise.

Our electric power system took years of development. It took faith and courage and vision on the part of management. And it took billions of dollars, invested in the complicated equipment needed constantly to improve service and at the same time reduce the cost of electricity to the consumer.

A substantial share of this money came from life insurance companies. For example, Metropolitan has invested many millions in underlying securities of public utilities, helping to finance their growth and expansion.

These are the dollars which came to the Company because life insurance agents helped policyholders to provide security based upon the needs of their particular families.

Today, by far the larger part of Metropolitan's fund available for investment is going into United States Government bonds. But when the war has been won, America's power companies will continue to progress and electricity will work many new wonders in its field. Already we are promised many new developments in radio, television, and electronics.

When, in the post-war period, money is once again needed to bring the magic of electricity to more millions of people, policyholders' dollars will be ready. For Metropolitan's 30,000,000 policyholders have faith in the continued and growing greatness of their country... a faith they evidence every time they pay their premiums.

BUY WAR SAVINGS STAMPS — FROM ANY METROPOLITAN AGENT, OR AT ANY METROPOLITAN OFFICE

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• Many industries, large and small, are today utilizing the modern miracle of A.A.I. Automatic Alarms to guard their properties and plants against sabotage, espionage and theft. Automatic Alarms, used in connection with any type of industrial fence, employ the detection of sound vibrations to locate danger, signal and dispatch guards. Here is dependable, round-the-clock protection, to step up safety and lower costs. Use it for your particular industry.

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**Elevators • Hoists
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lowed by a relatively good crop in 1937, and loan stocks of corn increased.

• **The Top Figures**—Approximately 800,000,000 bu. of corn flowed in and out of the granary during the next four years. The biggest supplies the granary ever held were 462,000,000 bu. under loan in April, 1940, and 230,000,000 bu. were owned outright by CCC in March, 1941.

These loan and owned stocks helped make possible a sensational wartime expansion in the production of hogs, poultry, and dairy products, as well as increased production of industrial alcohol for the manufacture of explosives. At the moment, the CCC is practically out of owned corn, and the loan stocks total less than 100,000,000 bu.

• **Wheat Helps in War**—Loans on wheat, instituted in 1938, have been made to date on more than 1,300,000,000 bu. The only loans held now are on 135,000,000 bu. stored on farms, but the corporation owns some 345,000,000 bu. of wheat delivered in satisfaction of loans. This is the most wheat the CCC has ever owned, but it is in addition to more than 250,000,000 bu. owned and sold by the corporation at sub-parity prices to livestock feeders, or to millers and distillers for the production of granular flour for alcohol, during the last 16 months.

As in corn, the wheat accumulated during the years of record production and small exports has contributed greatly to the war food and industrial products program. Corporation loan and owned stocks will be much needed this year in view of the relatively small winter wheat crop now about to be harvested. By July, 1944, the corporation may be out of wheat.

• **Production Program**—Since the acreage of corn cannot be increased further (in view of the requirements for vegetable oils), the only alternative is for larger planted wheat acreage this autumn for 1944 harvest. Prospects now are for a much enlarged production goal next year if not complete elimination of planting restrictions.

The record for cotton is similar. Huge stocks were accumulated under loan and ownership—aggregating more than 11,600,000 bales through 1939. Critics insisted this cotton would never be marketed in any substantial volume, but a world war intervened; 600,000 bales were exchanged for rubber held by Great Britain, lend-lease has taken out more than 1,500,000 bales, and sales from owned stocks have totaled more than 1,000,000 bales to satisfy an unprecedented domestic wartime mill demand for cotton for military and civilian uses.

• **Cotton Moves Out**—During the last ten years, the corporation made loans on more than 25,000,000 bales, but the loan and owned stocks now total less than 7,000,000 bales. Mills doubt that

the remaining stock can be moved through regular commercial channels because much of it is short staple or inferior grade.

Cotton, corn, and wheat have been the big three in the nation's granary program. Loans and purchases cover nearly 100 additional commodities, but each relatively small volume. Prior to 1940 the operations were limited to loans and take-overs; since then the activities have been extended on a broad front of purchase-and-resale operations termed price supports to encourage increased production of farm commodities.

• **Help for Good Friends**—Commodity Credit also finances importation of foreign oils, sugar, coffee, tea, and the like—providing markets for war allies and friendly neutrals, accumulating stock-piles here and abroad, and taking some losses on these to preserve price ceilings against increased ocean transportation costs. The corporation is buying, for example, the unshipped portion of Brazilian coffee quotas and storing the coffee in Brazil for future ship space.

When the war ends, the CCC will undoubtedly find itself in possession of enormous quantities of agricultural commodities here and abroad. Huge stocks of sugar, coffee, tea, cotton, and other staples will be available for sale in world markets.

• **Liquidation Problem**—The indiscriminate dumping of these stocks would quickly disrupt world trade and plunge every nation into economic chaos. Instead, the CCC officials have indicated that with regard to coffee—and presumably as to other commodities as well—every effort will be made to prevent such a postwar catastrophe.

Besides accumulated stocks of commodities of all kinds, considerable expansion will have taken place in the production of vegetable fats and oils in the United States and the Southern Hemisphere, and of substitute products such as grain-base synthetic rubber and hemp. All these will be pressing on world markets.

• **The Postwar Job**—The manner in which they are handled internationally—whether it be through the instrumentality of an international commodities bank or otherwise to raise world levels of consumption—will determine the continued expansion of production in the postwar world.

POSTWAR AIMS PROJECTED

Last week in Cincinnati, when almost a hundred members of the Producers Council met at the Sherry-Netherland hotel, the building material industry became the first in the country to attempt to gear its own specialized postwar plans into the over-all program mapped by the Committee for Economic Development, the national planning group headed by Paul Hoffman of

Glimpses into the wonder world of tomorrow



ADVANCE INFORMATION about post-war shopping

TIME: 9 o'clock, some morning in the future.

PLACE: Mrs. Jones's living room.

Mrs. Jones flicks a switch on her television set and tunes in the Shopping Tele-column of the Air. There she sees and hears the day's best buys, after which she will make up her shopping list and go to market—knowing exactly what she wants.

Far-fetched? Not a bit!

Tomorrow's housewives are going to have an opportunity to see products and packages by television right in their own homes . . . in full color, too! Guided by professional shoppers—yes, and television advertisers—

they'll know just what to look for. Shoppers will be better informed and more discriminating than they are today.

That's only one of the many remarkable changes to look for after the war. Because science is making almost incredible progress toward a new way of living.

Stores will change. And products. And packages—for greater eye appeal and product protection.

We believe Cellophane will play an important part in post-war packaging. What we have learned during eighteen years of peacetime research and what we are learning now in solving many vital wartime packaging problems will help to make this so.

NOTE

We should like to keep you informed of developments as they occur, and will gladly place your name on our mailing list for periodic packaging bulletins.

Write E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington, Delaware.



Cellophane

IN THE WAR OF NERVES, the ether waves play a big part. Friend and enemy fill the air with news and propaganda 24 hours a day. Often the broadcasts are intended for home consumption only, and may reveal strategic inner weaknesses of our foes. Sometimes a furtive signal flashes from a hunted "underground" station in an Axis-dominated land.

It is important that our government be kept thoroughly informed regarding all this attack and counter-attack in the air. Yet to listen to and transcribe all the millions of spoken words would require a large corps of expert linguists on the spot all the time.

Right there is where Dictaphone comes in. For Dictaphone can record any language, and remain on duty 24 hours a day!



If you should go into one of the listening posts where foreign broadcasts are being recorded, you would appreciate the need for intense concentration and accuracy. And you would see a battery of Dictaphone recording machines catching every word for future reference and use. Such recordings may be transcribed at the convenience of the translator — as fast or as slowly as he desires.

Other Dictaphone equipment is now giving invaluable service in war plants and government offices — helping to keep mental production flowing — saving time for key men and their secretaries. Never has the ability of the Dictaphone method to handle staggering volumes of work been proved so well.

Meanwhile, in the Dictaphone Research Laboratories, other marvels of electrical voice recording are being readied for use by the armed forces now... and by all business when our enemies have been crushed and we face forward to a new day.

Dictaphone Corporation, 420 Lexington Avenue, New York City.



DICTAPHONE

ACOUSTICORD DICTATING EQUIPMENT
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The word DICTAPHONE is the Registered Trade-Mark of Dictaphone Corporation, Makers of Dictating Machines and Accessories to which said Trade-Mark is Applied.

Studebaker Corp., which is studying the problems confronting American business after the war (BW—Jan. 24, p. 27).

Despite a vote in favor of such integration of planning, it remains to be seen just how successfully the building materials men will be able to effect a meeting of minds with C.E.D. For William B. Benton of the University of Chicago, a former advertising agency executive who serves as vice-chairman of C.E.D., made it bluntly clear that the building men wanted to come along with the committee, it would have to be on C.E.D.'s own terms.

Blasting away at the idea that there was any royal road to postwar profits despite rosy prospects for the sale of as many as two million homes a year after the war, Benton characterized as "notorious" the practices in the construction industry which "force and keep prices up," suggested that they might warrant a congressional investigation unless the industry took steps to do its own housecleaning. Other speakers sounding the same theme of consumer protection, warned that "monopolistic activities would retard not only the building industry's recovery but also that of the entire country."

Lots of Gas, But—

Army and Navy are taking so much of it that all commercial vehicles in East are ordered to reduce mileage further.

The enormous part gas and oil are playing in plans to invade Europe has come home to 13 eastern states with the impact of Mother Hubbard's cupboard on her hungry dog. The gas shortage, which caused the Office of Defense Transportation to slash bus, taxi and truck mileage 20% at once (BW—May 29, p. 106) and ask for a 40% cut by extending T coupons 21 days, confronted the public despite the fact that deliveries to the East are up 20% since January and have never been greater.

• **Blame It on the War**—Floods in the Midwest interrupted the flow of gasoline when railway bridges were washed out, when freight yards swam, when barges bumped into pastures, and when the 24-inch pipeline was damaged. But the floods weren't the main reason for the crisis. The Army and the Navy were at the bottom of it. And that's why pleasure driving and luxury deliveries and frequent bus service won't come back, maybe until August.

Prior to the war, tank cars were moving between 5,000 bbl. and 10,000 bbl. of petroleum products into the East daily. By Dec. 7, 1941, this had grown to 60,000 bbl. During the first two

weeks of May, tank cars were bringing the east 985,000 bbl. a day—of which 856,000 bbl. were earmarked for civilian use.

More to Come by Barge—Barges were adding 85,000 bbl. a day, while pipelines carried 186,000 bbl. ODT expects that, by August, barge deliveries will be up to 200,000 bbl. every 24 hours. Thus neither the transportation system nor Washington bureaucracy can be blamed for the eastern gas famine. The villain is war.

To conserve what little gas there is for vital farm needs and civilian use, ODT limited the number of retail or wholesale deliveries that may be made per week in 13 eastern states and completely stopped retail deliveries of 15 commodities such as liquor, magazines, ice cream, beer, radios and phonographs, furs, jewelry, and antiques. The order did not apply to deliveries to manufacturing plants unless the product was to be retailed there.

Vital Deliveries Limited—The number of deliveries permitted per week depended on the commodity—laundry got two, eggs, meats, fruits, vegetables, and bake goods got three, milk got four retail trips. Wholesale trips, in general, could be made oftener. ODT's control will be a check on the certificates of war necessity that all commercial operators of motor vehicles have to possess.

As was inevitable, there were complaints. New York's milkmen refused to carry a double load in the skip-a-day plan and inserted advertisements in the newspapers asserting that "thousands of employees" would be thrown out of work and that, anyway, ODT shouldn't have included under the mileage ban their thousands of horse-drawn wagons.

Ice Cream Wagons Go—Good Humor's jingling ice cream trucks were swept off the streets, but, with rueful grins, the company was considering scattering its cars on private property where, probably on jacks, they could serve as stationary retail outlets. Manhattan, which used to tell tourists that Broadway is 21 miles long, set out to halt Sunday buses on such long north-and-south routes and put the Fifth Avenue double deckers in the garage. To meet problems of adjustments, WPB worked with ODT on a priorities list for complaints. Obviously, buses carrying war workers will get special rights.

Results of the present cuts will be studied carefully by ODT to see whether further slashes are necessary—and predictions aren't hopeful.

Dealers Satisfied—Meanwhile, department stores, liquor dealers, grocers, and other retailers, whose labor problems have been heavy, cooperated cheerfully. If customers carried home most of their purchases, that was a help. There seemed to be no incentive to bootleg deliveries or any reason to hunt for loopholes.



"KEEP IT Confidential"

How important that is... especially in these war times. A confidential report, perhaps... thousands of copies prepared in advance for release at a moment's notice... yet the contents must not be known outside your office prior to release.

That's a simple assignment when you own a Davidson*. Just have your secretary type the copy directly on a paper or metal offset plate and give it to your Davidson operator. The job will be done before you know it—clean, sharp copies from start to finish—and only your secretary and your operator need know its contents. That's keeping it confidential.

But that's only one of the many ways your Davidson will serve you. Charts, ruled forms, illustrations,

etc., can be drawn directly on these plates and are ready to run in a few minutes. With equal speed and efficiency, your Davidson will reproduce from photographic offset plates, type, electrotypes, and rubber plates. Office forms, multi-color advertising folders, stationery, envelopes, form letters, shipping tags—all can be produced on this remarkable machine, providing a new high in quality at a new low in cost. And only a Davidson can give you all this in one machine.

DAVIDSON MANUFACTURING CORPORATION

1020-60 West Adams Street, Chicago, Ill.
Agents in principal cities of U. S., Canada, Mexico.

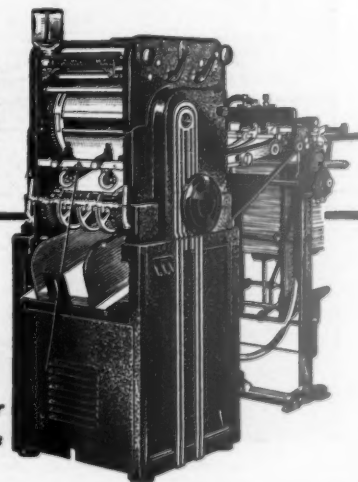


FREE. Write for this booklet. It gives the complete story of the Davidson and includes samples of the work it produces. Ask for your copy today. No obligation.

PRODUCE IT ON A

Davidson

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Notice how this workman is squinting . . . leaning over in an effort to see. Glare in his eyes is the chief cause.



Same workman . . . same machine. But with improved *seeing* conditions he is relaxed and comfortable.

These pictures show the meaning of **SIGHT FOR VICTORY**



Today in thousands of war plants careful attention to seeing conditions is helping to speed production, reduce spoilage, prevent accidents. Many little things can be done to correct lighting faults and make it easier to see—especially on the night shift.

Let's finish the job NOW!

To help all of the fighting war plants of America get the utmost production benefits from their present lighting, a nation-wide "Sight for Victory" check-up has been planned for the month of June. General Electric is glad to cooperate with other members of the Lighting Industry in this effort to help production men do these two things:

1. Check the seeing conditions in their plants.
2. Get the most out of *present* lighting equipment.

Get Your Copy of New Book SIGHT FOR VICTORY

Some day soon a lighting man is planning to call upon you. He will have your copy of a new manual entitled "SIGHT FOR VICTORY" including a time-saving Light-Sight check sheet, published by the National Better Light-Better Sight Bureau.

It tells you clearly and simply how to recognize and correct any lighting bottlenecks in your plant with the minimum use of critical materials or man-power.

This booklet is a valuable production aid. But it will be valuable to you only if you read it and use it. For that reason a lighting man is going to try to call on you and explain it in person. If he fails to reach you, you can still get your copy by phoning your nearest G-E lamp office. Or ask your G-E lamp supplier or local Electric Service Company. General Electric Co., Nela Park, Cleveland, O.



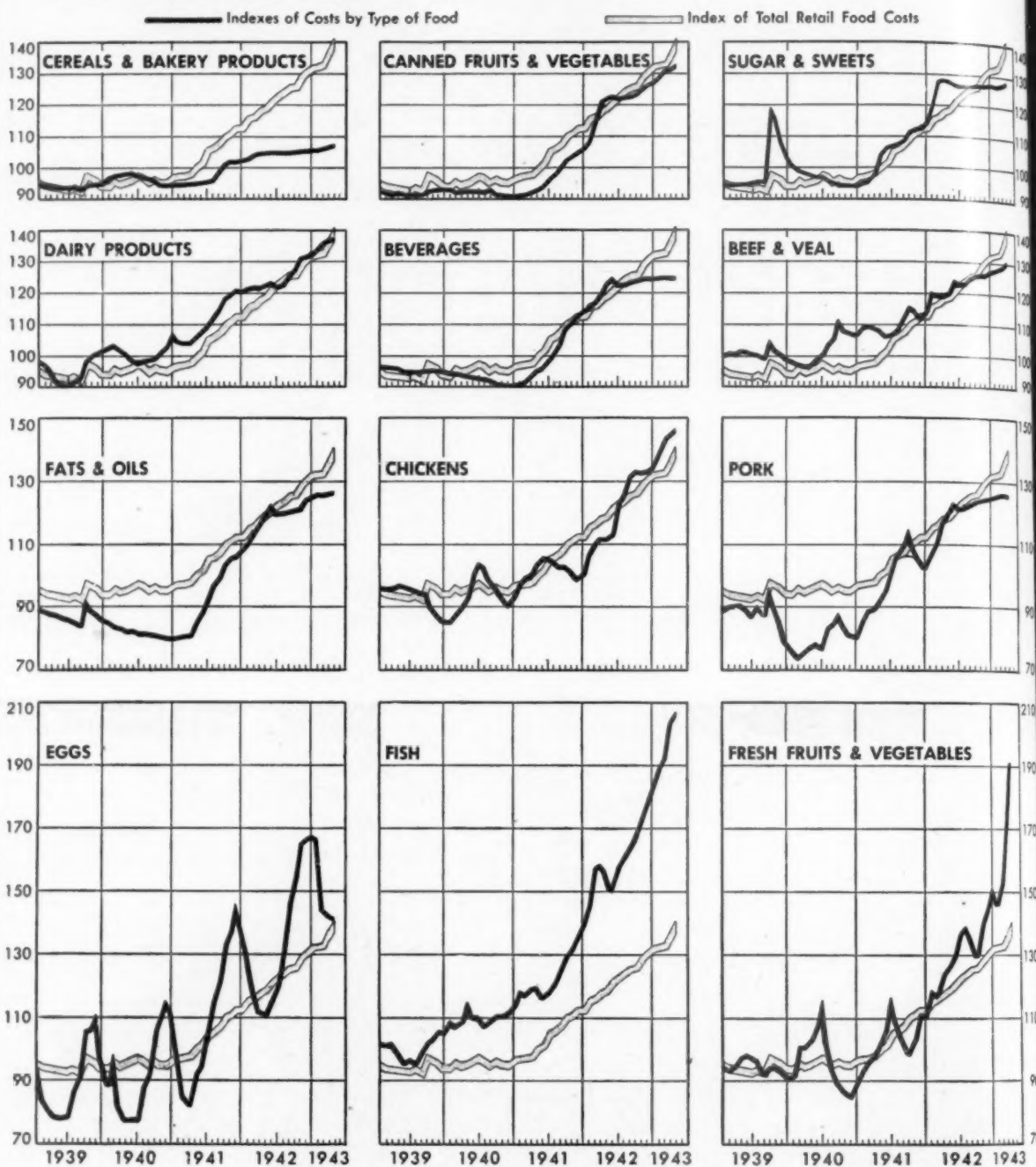
G-E MAZDA LAMPS

GENERAL ELECTRIC

*Tune in the G-E MAZDA lamp radio program Sundays 10 p. m.
(Eastern War Time) N. B. C.*

RETAIL FOOD COSTS — KEY INFLATION ISSUE

What the consumer has been paying, as measured by government price investigators (1935-39 = 100, not adjusted for seasonal)



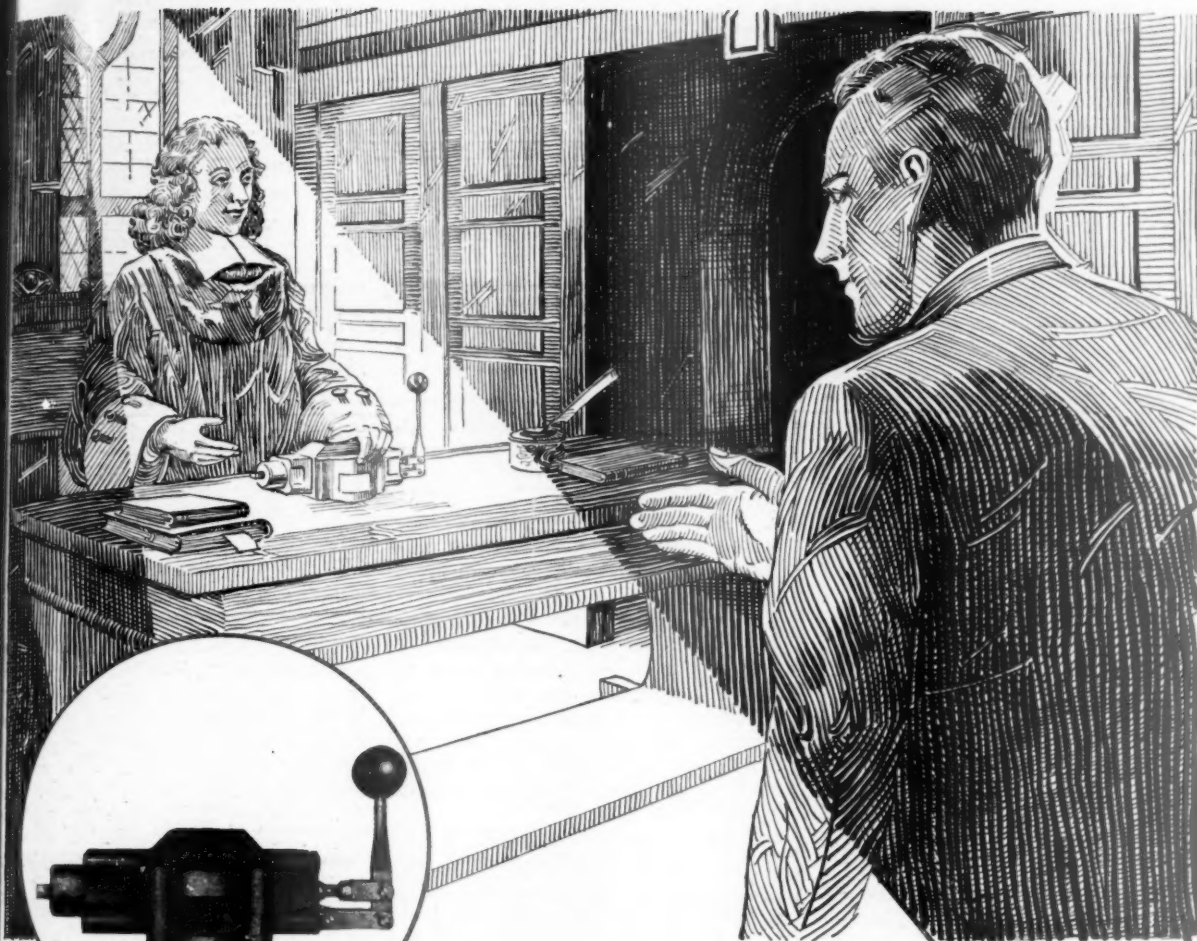
Date: U. S. Bureau of Labor Statistics.

© BUSINESS WEEK

Because of labor discontent with rising food costs, particularly price-ceiling violations, the Administration is calling for a food-cost rollback as a prerequisite for holding the line on wages. Meanwhile, the Bureau of Labor Statistics is checking its interview methods to see if they actually measure ceiling violations, as BLS be-

lieves (BW—May 29 '43, p38). Prices of cereals, sugar, beverages, beef, pork, fats, and canned goods were brought under price control in May, 1942 (as was milk). Last October, lids were placed on all dairy products, chickens, eggs, and a few fresh fruits and vegetables. However, most of these, as well as fish, continued to soar in price. And

BLS' own figures show how some controlled foods have risen. The Office of Price Administration now is planning (1) subsidies to cut meat, butter and coffee costs by 10%; (2) slashes in wholesalers' margins to reduce fresh fruits and vegetables by 25% to 40%; and (3) consumer enforcement of dollar-and-cents ceilings.



Have You Met Mr. Pascal?

Or perhaps we should say, "Do you know what Mr. Pascal's discovery offers you?"

More than three hundred years ago, Blaise Pascal said, in effect, "Pressure applied at any point on a fluid in a closed vessel is transmitted *undiminished* to all parts of that vessel." And today, Pascal's law is being translated into some of the most ingenious machinery and equipment in the whole history of industrial development.

Denison oil-hydraulic engineers bring this principle to its most advanced stage . . . in **HydrOILics**! Their application of fluid power, and exact control of that power, has not only resulted in many new products, but has also brought greater accuracy, speed and efficiency to hundreds of already established production tasks.

More than likely **HydrOILics** . . . Denison oil-hydraulics . . . offers improvement for your product, or its manufacture. Our engineers will gladly help you find out. Write at once for complete information. The Denison Engineering Company, 1191 Dublin Road, Columbus, Ohio.

Your Problems...

whether it be opening or closing a tiny port, accurately tilting a steel mill furnace, or closely regulating the speed and movement of machinery . . . perhaps with a four-way valve such as the one shown above . . . we are sure **HydrOILics** has something to offer you in your plans for Tomorrow.



DENISON
EQUIPMENT *IN* APPLIED
HydrOILics



Louder than the HURRICANE

IN the old days of wooden ships and iron men, a sea captain's voice had to be louder than the hurricane, to carry over the roar of wind and waves. Today the miracle of radio flashes the spoken word around the world in a fraction of a second, but even radio must contend with problems of interference—natural and man-made static that disrupts communications. Breeze engineers have specialized in the solution of such problems for many years, have pioneered and developed Breeze Radio Ignition Shielding to guard electrical circuits against radiation or absorption of the high-frequency impulses which cause interference. Produced in a wide range of types and sizes, this equipment is designed to meet the requirements of any shielding problem, is in service today on world-wide battlefronts with our armed forces of land, sea, and air.



Breeze

CORPORATIONS, INC., NEWARK, N. J.

Fewer Sweets

Candy manufacturers have slashed the number of items but are making 13% more of those that remain.

Candy manufacturers attending the wartime conference of the National Confectioners Assn. in Chicago found their convention not the only thing streamlined. Voluntary simplification has cut the number of items in most companies' lines about 75%.

• **How They've Slashed**—A preconvention survey indicated that the 144 manufacturers reporting had slashed their stock items from 13,400 (including duplications among brands) in 1941 to 3,449 now. The 41 bulk candy makers represented now produce only 1,508 stock items compared with 6,935 two years ago.

Except for 1-lb. units, the only stock items that didn't get the ax were 5¢ candies—thanks to booming sales in post exchanges, ship service stores, and war plants, where both buyer and seller appreciate their convenience. Two years ago 5¢ candy represented 20.3% of the reporting companies' total output; now it's 30.5%.

• **In the Swing**—Even bulk candy manufacturers joined the swing. Their production of 5¢-candy units is now 16% of their total output, compared with 5.7% in 1941. During the same period, their production of bulk candy dropped from 69% to 54.4%. Nutrition enthusiasts champion 5¢ candy bars because such ingredients as eggs, soy products, nuts, dairy products, and peanuts give most of them a fair balance of proteins, fats, and carbohydrates.

Despite shortages of chocolate, sugar, dairy products, and fats, manufacturers' sales of confectionery and competitive chocolate products were 26% greater in March, 1943, than in March, 1942, while production by pounds increased 13%, according to the U. S. Dept. of Commerce. Confectioners boast that they now make a pound of sugar gel 50% further than it did two years ago by such devices as using more fruits and nuts and eliminating candies that take more than their share.

• **Government Candy Exempt**—Candy sold to the government, including PX's and ships' stores, is exempt from quota restrictions on sugar, chocolate, and, in some instances, fats. Bulk candy manufacturers have drastically cut those lines that retailers sold as "penny" candy, but such well-established 1¢ bars as Tootsie Rolls (made by Sweets Co. of America, Inc.) are still on the market and going strong.

NO HAIR FOR CIVILIANS

A shortage of cattle tail hair, used in parachute pads, saddle packs, and mattresses for the armed forces, has caused WPB to eliminate raw horse mane hair for civilian uses so it can be mixed as a stretcher with cattle hair. The amendment (to M-210) does not apply to imported drawn hair which is used in brush making.

Argentina supplies more than 60% of our imported cattle and horse hair, about ten times our domestic production. Chile, Uruguay, Brazil, and Mexico also are suppliers.

Prices on imports are fixed: cattle tail hair, frigerifico (from big slaughterhouses) 50¢ a pound; campo (from small producers) 44¢ a pound; raw horse mane hair bundled 54¢, classified 36¢, inferior 25¢, combs 22¢, all f.o.b.



Extra nutrition and energy—in candy form—went out to soldiers and volunteers combating disastrous midwestern floods last week. More than 400 lb. of Baby Ruth, donated by Curtiss Candy, were delivered by Civil Air Patrol.

More Stoves Due

Concentration program to give way to rationing; more manufacturers now will get a crack at the market.

Rationing has provided WPB with a good excuse to kill its biggest and oldest concentration program—in the stove industry (BW—May 23 '42, p16). When the rationing of heating and cooking stoves starts the latter part of June, more manufacturers will be allowed by WPB to share the market.

● **Distribution Snagged**—At present, only about half of the 245 stove makers are permitted to make stoves for civilians. The others are forced to fend for themselves, which they are doing with more or less spotty success. But the concentration program, all in all, has been no world-beater and—like most concentration programs—has the fault of interfering with a nation-wide distribution system. Under rationing, such a fault might become fatal.

WPB is considering an amendment to L-23-c that would lift weight and quality restrictions imposed on the stove industry so that it can utilize the 32,000 tons of steel allocated (good for about 500,000 heating stoves) in a wider area. The emergency program imposed under Ration Order 9 last Dec. 19, rationing coal and wood and oil heating stoves in the 32 eastern states, will be superseded.

● **About-Face Considered**—The scarcity of stoves revealed last autumn is causing WPB to consider an about-face that may end its experiment with the British concentration idea. Stoves were the first commodity subjected to this scheme. Manufacturers who were allowed to continue making stoves numbered about 125; all were located in loose labor areas and had had gross factory sales of less than \$2,000,000 for the base period (June 30, 1940, to June 30, 1941). Each was restricted to 50% of the heating units he had made in the base period, 70% of the cooking units, and 70% of total weight. Other manufacturers were told to seek military contracts for stoves or convert to other war or civilian work before July 13, 1942.

Now it is proposed to ration all stoves whether they burn coal, wood, oil, or gas, to ration them uniformly, and to let any manufacturer make civilian stoves subject only to a limitation as yet undecided, perhaps 50% of the base period. The effect will be to raise output slightly and to scatter production, chiefly in the West.

● **Certificate Needed**—The tentative rationing plan would give coal and wood areas more stoves for such fuels, the Southwest more gas stoves, New England fewer oil stoves. Anyone who wants

● More and more... alert war-time executives are benefiting from the "fact-power" of Kardex Cost Analysis Controls. These simplified summary records provide management with highly important cost data, so vitally necessary under present-day conditions.

And Kardex continues to supply countless war manufacturers with graphic "fact-power" control of costs... helping them to deal successfully with contract renegotiation proceedings... or assuring accurate cost for adjustments on contract cancellations. There are other reasons why complete and efficient cost records are needed; They're a "must" to present cost data under OPA Maximum Price Regulations, for accurately estimating new prime and sub-contracts, for comparing efficiency under

proposed "incentive" plans, and for setting standards in connection with effective post-war production plans.

To provide management executives with latest developments in cost accounting systems and procedures, Remington Rand has just prepared an elaborate new portfolio, "Cost Analysis for Profit Control." It contains representative samples of twenty sets of visible Kardex forms, fully described; more than thirty additional loose leaf and machine posting systems; and eighty pages of analytical data on efficient systems used successfully by more than fifty concerns in a variety of operations.

Write  **Phone** 

**or Wire
AND ASK
FOR**

**This Valuable
BOOK**

Yours without obligation for a ten-day period. Write us at Buffalo, N. Y., or phone your local Remington Rand Systems Office.

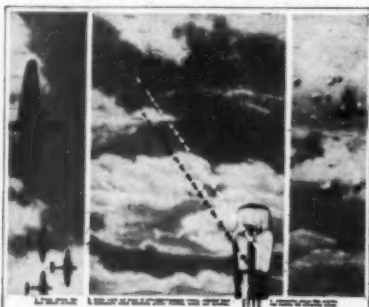
Radar Goes Commercial

Now that the Army and Navy have dropped the shroud of secrecy around radar, the eyes and ears of modern military combat, the big radio manufacturers are losing no time letting the public know their part in its development. For the peacetime possibilities of this remarkable instrument stagger the imagination, and the companies on the ground floor expect to capitalize on it.

● **Too Busy to Argue**—Responsibility for discovering the science of "radio detecting and ranging" (whence the name radar is derived) is one of those mysteries that nobody is worrying too much about now. All the principal manufacturers are too busy turning out radar equipment for the services to debate the point.

That their advertising and publicity departments are not passing up a bet is evident from the General Electric and Western Electric advertisements (photos) already in wide circulation. In addition, G.E. has plugged radar on the air twice a week since the Army and Navy, late in April, dropped their restriction against utterance of the word; and Westinghouse Electric took to the airwaves last Sunday.

● **Reflected Signal**—Radar is not new. Westinghouse recalls that one of its scientists in the East Pittsburgh laboratories almost ten years ago observed that radio signals transmitted from the plant to the laboratories a mile away "rebounded" when they struck an automobile passing between the two points. It is no secret that the British "radiolocator," embodying the same principle of reflected ultrahigh-frequency radio waves, enabled the RAF to foil the Luftwaffe's "surprise" raids over England.



The facts about

RADAR

"The radio waves of radar are used to detect objects at a distance and to determine their position and direction. This is done by reflecting the waves off the object and receiving the reflected waves. The time it takes for the waves to return is used to determine the distance. The direction of the reflected waves is used to determine the direction of the object." —General Electric

For more information, write to: General Electric, Radio Division, Schenectady, N. Y. 12301. Please mention this advertisement.

By this way to reveal, radar is used to detect objects at a distance and to determine their position and direction. This is done by reflecting the waves off the object and receiving the reflected waves. The time it takes for the waves to return is used to determine the distance. The direction of the reflected waves is used to determine the direction of the object. —General Electric

GENERAL ELECTRIC



Equipment for Combat

There is the fact and to be a greater distance, as well as the fact that the radar is used to detect objects at a distance and to determine their position and direction. This is done by reflecting the waves off the object and receiving the reflected waves. The time it takes for the waves to return is used to determine the distance. The direction of the reflected waves is used to determine the direction of the object. —General Electric

Both the Germans and the Japanese have employed some form of radio detection; and the United States was in the war less than 24 hours when its people knew—even if they didn't know the name—that radar had heralded the approach of Japanese planes toward Pearl Harbor. The Westinghouse robot worked, but its human masters failed to heed its warning.

● **Beamed with Precision**—Ordinary broadcast radio waves radiate from the transmitter in all directions, as ripples in the water when a stone is dropped into a brook. Radar beams its signal with precision in one direction. The signal travels with the speed of light—186,000 miles a second. When it strikes an obstruction, it rebounds to a receiving instrument.

The reflected signal actuates the receiver in such a way that, as a guard against enemy aircraft, the position, direction, and speed of the plane are readily determined. This is an improvement of incalculable value over the outmoded acoustics detector, which caught the roar of approaching engines but was handicapped by the fact that sound travels too slowly—about 700 m.p.h.—to satisfy the demands of modern warfare.

● **Navy's Seeing Eye**—Radar also has proved its value, according to the services, in naval warfare as the "seeing eye" which penetrates to the invisible target and makes it possible to deliver lethal blows to an unseen enemy.

Westinghouse envisions one peacetime application of radar as an absolute altimeter for aircraft, removing the uncertainties of the sea-level altimeter in flights over uneven terrain.

to buy a stove after the plan goes into effect will have to apply to his ration board for a certificate of need. There will be limited by a quota system. Applicants qualify by stating that the stove is to be used in essential living or working space, that they have no usable stove, that it will replace one worn beyond repair, that they have not disposed of a stove during the past 60 days.

Dealers and wholesalers will register their 1941 sales of new stoves and their present inventories; then they will get an inventory ceiling to limit the number of stoves they may have at any one time. The present limited number of stoves as well as 1941 sales will fix this figure.

Canning the Crop

Record high of 275,000 pressure cookers, with ceiling prices imposed, to be available for V-garden produce.

Coincident with another allotment of steel that will bring this year's production of home pressure cookers up to a record high of 275,000, the OPA set dollar-and-cents ceiling prices on three war models. Production of 150,000 began two months ago (BW—Apr. 17 '43, p68) following about three months' of complete stoppage of output.

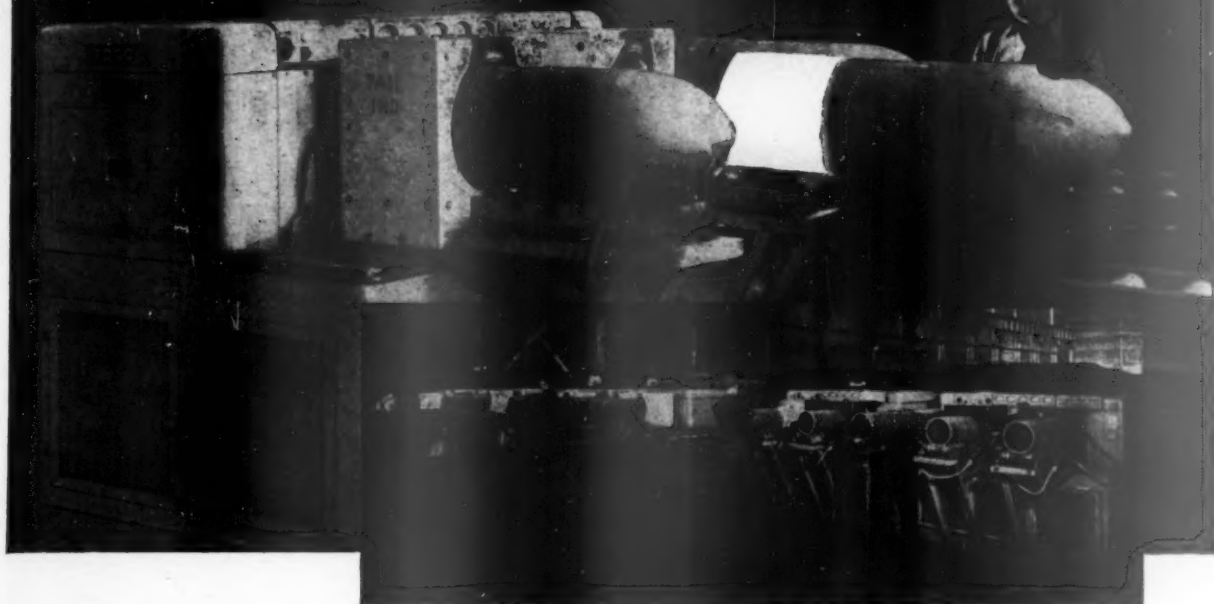
● **Into Retail Channels**—On the basis of reports from manufacturers, 31,000 cookers are now moving into retail channels. With additional manufacturing capacity coming into operation, it is expected that production in June will be about 55,000, and in July, about 60,000. Thus, by Aug. 1, a total of 146,000 will be ready. The remaining 4,000 and the additional 125,000 should be completed before the fall canning season. Of the total 275,000, about 20,000 will be of 14-qt. capacity, the others of 7-qt. size.

These cookers, with enamel-covered steel bottoms and tinplated steel covers and holding seven glass quart jars, are a modification of previous models using a limited amount of critical materials. The cookers are being rationed through county farm rationing committees.

● **Ceiling Prices**—OPA price ceilings apply to three makes now being put on the market by the National Pressure Cooker Co., Eau Claire, Wis.; Burpee Can Sealer Co., Barrington, Ill.; and Wisconsin Aluminum Foundry Co., Manitowoc, Wis. Manufacturer to jobber prices, f.o.b. factory, are \$6.95 for National, \$7.45 for Wisconsin, and \$7.95 for Burpee. Manufacturer to retailer prices, in quantities of less than 100, are \$9.27, \$9.93, and \$10.60, respectively. Differentially lower prices are fixed for larger quantities.

Jobber to retailer prices run \$9.27,

THIS "BOMBARDIER" HITS THE TARGET EVERY 49 SECONDS



At Wheeling Steel Corp., batteries of TOCCO machines are really putting the heat on the Axis—heating the ends of pipe to 2100° F. for the spinning of bombs.

One operator, manning two TOCCO machines, each with two inductors, heats tail ends of these "500-pounders" and feeds one to the spinner every 49 seconds.

The heated area of every bomb is uniform. TOCCO's automatic timing assures accurate temperature for uniform forming results.

Yes, it's a fast pace, but the "bombardier" maintains it easily. The push of a button starts each TOCCO station. His "bomb bay" between the four stations of the 7' wide TOCCO machines is compact. His working conditions are safe and free of fire, heat and fumes.

Just as TOCCO is blasting the Axis in this and hundreds of other war factories, so will it crack wide open many of your tough problems in post-war planning. Find out how these dependable, rugged induction heat-treating machines will cut your costs and improve your products.

THE OHIO CRANKSHAFT COMPANY
Cleveland, Ohio



TOCCO

World's Fastest, Most Accurate Heat-Treating Process

**HARDENING
ANNEALING
BRAZING
HEATING for
forming and forging**

THE GRAVITY OF THE SITUATION

Calls for Better Packaging



AN AVERAGE of five more tons per car . . . that's the war-load being shouldered by the railroads. And that's why "floored" shipping boxes must support many more pounds per package.

One case for better packaging rests on that fact. Crushed shipping boxes mean damaged merchandise. That means waste of materials, manpower, time and shipping space . . . waste that can be greatly curtailed by use of sturdy corrugated boxes engineered to meet the new conditions.

Ask an H & D Package Laboratory to check your shipping boxes. A few pennies more in the right place may enable you to cut losses enormously.

Protect the Product

BETTER SEE **H&D** AUTHORITY ON PACKAGING

PACKAGING "TEXT-BOOKLETS" FREE



Here's a handy source of practical shipping information to help you solve day-to-day shipping problems. It will pay you to take this "refresher-course" in packaging. The cost? A penny post card. Mail your requests to . . .

HINDE & DAUCH

EXECUTIVE OFFICES, 4361 DECATUR STREET, SANDUSKY, OHIO

FACTORIES in Baltimore • Boston • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Hoboken • Kansas City • Lenoir, N. C. • Montreal • Richmond • St. Louis • Sandusky, Ohio • Toronto

\$9.93, and \$10.60, f.o.b. seller's city, except in the far West, where prices are \$9.67, \$10.33, and \$11. Retailer to consumer price ceilings are \$13.90 for National, \$14.90 for Wisconsin, and \$15.90 for Burpee (plus 60¢ in the far West). All cookers sold at these ceiling prices must carry a 90-day guarantee.

POOLING THE COOKER

Houston (Tex.) Natural Gas Corp. hopped on the shortage of steam pressure cookers to make a nice grandstand play with its patrons and at the same time to help government food conservation agencies achieve maximum use of available cookers.

The public utility wants to buy 100 18-qt. cookers (\$18 each) and 100 automatic sealers (\$12 each) and lend them without charge for limited periods to housewives in the 19-county area it serves.

In originally limiting 1943 production of pressure cookers (page 36), WPB also restricted sale of them to housewives who would pledge to can 750 qt. or more of Victory garden and truck patch produce. Already Houston Natural Gas has accumulated, under the approving eyes of Dept. of Agriculture officials, more than enough applications from individual canners to warrant allocation of the cookers and sealers.

Each family or neighborhood pool will have free use of a cooker and sealer for one to three days, depending on the size of the projected pack. For overtime, a penalty of \$2.50 a day will be charged.

CABS MUST BE SHARED

Ride-sharing plans that sacrifice the privacy of taxicab travel to tire and gasoline conservation have passed from a voluntary to a compulsory basis in Pennsylvania. Under orders of the Public Utility Commission, Pennsylvania's 2,700 cabs must now be shared among passengers traveling in the same general direction—provided the initial patron does not object.

Solving the stickler of just how fares should be apportioned among multiple passengers, P.U.C. regulations require a separate meter reading for each rider. Thus the meter is shut off and restarted as each person alights.

Theoretically this system cut the cost of, say, a 90¢ trip to only 50¢ for a ride-sharing patron; but operators generally are pleased with the plan. They say standard meters, charging 25¢ for the first ¼-mile and 5¢ for each additional ¼-mile, pay a "bonus" with each meter start that will iron out any inequities.

Commending Pennsylvania's plan, the Office of Defense Transportation considers it a trial for nation-wide compulsory ride sharing, if it becomes necessary.

BOHN



GEORGE V. WALKER

HERE'S THE HELICOPTER

Tomorrow is destined to be full of extraordinary surprises. Aviation experts tell us the Helicopter will be in everyday use.

This is the amazing airplane that is said will be within reach of the majority. It will handle as easily as a motor car. It ascends and descends vertically—flies backward or sideways as readily as forward. It can take off or land on

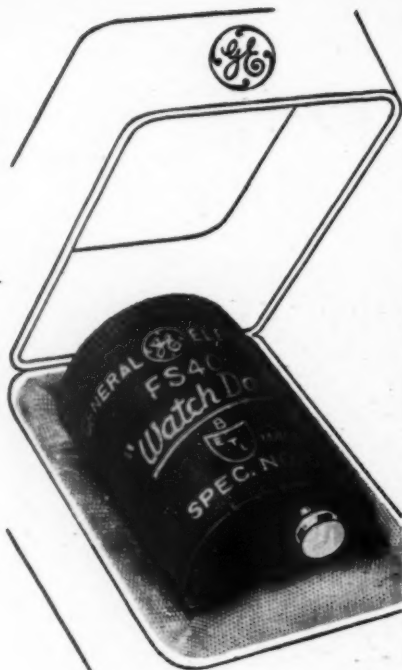
the roof of an average-size building.

The large variety of advanced light alloys produced by Bohn will be of great importance in making possible developments of this character.

Remember the name Bohn. Tomorrow when we return to normalcy, Bohn research staffs might be of invaluable service in designing new and better products for your requirements.



BOHN ALUMINUM AND BRASS CORPORATION, DETROIT, MICHIGAN
GENERAL OFFICE—LAFAYETTE BUILDING
BOHN'S PATENT—ALUMINUM • MAGNESIUM • STEEL • AIRCRAFT-TYPE BRASSING



It's a "Gift"
for

FLUORESCENT USERS

G-E's new fluorescent starter, the FS-40 "Watch Dog" for 40-watt lamps, is like a gift — something you always wanted but couldn't get.

It will give far longer service* than average; end blinking and flickering; prolong lamp life; protect the ballast and cut maintenance time to a minimum. It is a precision lamp starter and precision lamp stopper designed for more economical, more satisfactory fluorescent lighting.

For detailed data substantiating these claims send the coupon below.

*Under specified test conditions the "Watch Dog" outlasted an average of ten 40-watt lamps — the equivalent of 25,000 hours of lighting service.

Section G631-102
Appliance & Merchandise Dept.
General Electric Co.
Bridgeport, Conn.

Gentlemen: Please send additional information about your new FS-40 "Watch Dog" Starter to:

Name.....
Company.....
Address.....
City..... State.....

GENERAL ELECTRIC

WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Transportation

Truck, bus, and taxicab mileage in the eastern gasoline shortage area has been cut 40% by the Office of Defense Transportation (page 26) in a stretch-out action extending from June 30 to July 25, the period during which current T gasoline rations are valid. (General Order ODT 39, for 20% cut.)

A further effort to conserve gasoline in the shortage area is ODT's drastic restriction of all wholesale and retail deliveries, which includes prohibition of retail deliveries of 15 commodities. (Order 17, Amendment 3.)

Fats and Oils

Bakers and manufacturers of baking mixes have been provided, by OPA order, with a method of obtaining, for the six months ending Oct. 1, 1943, rationed fats and oils amounting to 100% of the quantity used in the same period in 1942, as promised earlier (BW—May 8 '43, p82). When a baker or manufacturer of baking mixes applies for the 70% July-August-September allotment of fats and oils formerly allowed, he may apply on form R-315 for a supplemental 30%. (Ration Order 16, Amendment 29.)

Controlled Materials

The Controlled Materials Plan Division of WPB has issued form CMPL-150A for use by contractors (consumers of controlled materials) in extending allotments of controlled materials to their subcontractors (secondary consumers) producing Class A products, except allotments made under Aircraft Resources Control Office; also forms CMPL-200A and 201A for use by manufacturers in increasing or decreasing allotments of controlled materials to their subcontractors; and forms CMPL-200 and 201 for use by claimant agencies and industry divisions. Production schedules authorized through the use of these forms supersede all previous schedules for the products involved.

Copper Cable

Major cable companies are required by WPB order to ship a definite amount of copper cable into their regular warehouses each month, to forestall any possible shortages in the mining industry. Cables may be withdrawn from storage by the mine's certification of its serial number or the certification of such number by a manufacturer.

Rubber Footwear

Details of the system for rationing men's rubber boots and rubber work shoes have been simplified for consumer, retailer, and manufacturer, and classifications of workers eligible for Type 5 rationed footwear have been increased to include, in addition to the miners and loggers already eligible,

communications linemen, construction workers, oil drillers, quarry workers, and clay extractors. (Ration Order 6A.)

Meats

OPA action has placed some 58 varieties of meats and edible byproducts of beef, lamb, mutton, and pork under special dollar-and-cents wholesale maximum prices at about the March, 1942, level. (Regulation 398.)

In another OPA action, affecting commercial eating establishments, special ceilings of beef and veal for sale by hotel supply houses, packers, and wholesalers to hotels, restaurants, and other purveyors of meats have been brought under control, not only as to price but also as to amount that may be sold. Price levels are dropped 3% more to buyers of such meats; the amounts available to hotels or restaurants for specified three-month periods are limited to 70% of the volume of all meats sold to them from September 15, 1942, to December 15, 1942. The 70% restriction does not apply, however, to sales to war procurement agencies (Regulation 169, Amendment 12.)

Galvanized Ware

Limitations have been eased to allow increased production of garbage and ash cans to permit production of kerosene and gasoline cans, and to exempt buckets for bomb wells from Order L-30-a. Production of the full quotas of these items, however, will depend upon the supply of steel available for civilian use. (Order L-30-a, amended.)

Wire

Consumption of wire stitching and stapling for commercial binding of certain printed matter has been limited by an action of WPB that is aimed at pegging the consumption of bookbinder wire at 70% of normal annual use. (Order L-291.)

Lumber for Farmers

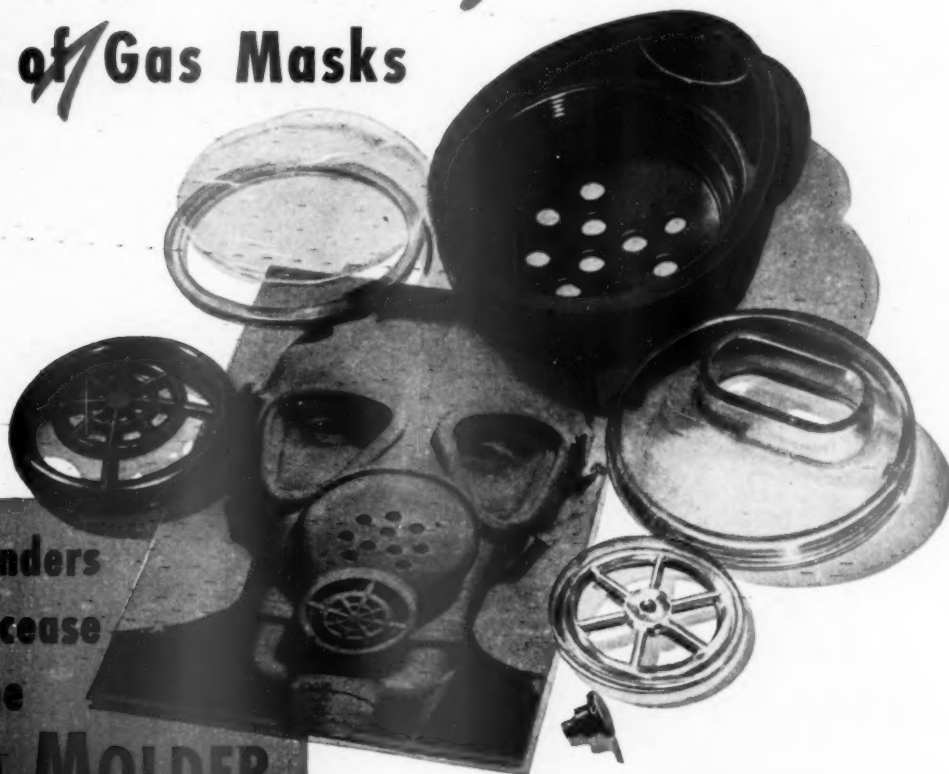
To meet lumber needs for essential farm repair and construction, WPB and the War Food Administration have announced an extension by WPB of the AA-2 preference rating for delivery, on presentation of authorized purchase certificates, of a total of 500,000,000 b. ft. of lumber during June, July, August, and September. Farm dwellings are excluded.

New Products

Instead of having to ask OPA's Washington office to set the price of new products, manufacturers are now authorized to set their own, under GMPR, for products not sold by them or by competitors during March, 1942. Self-determined prices arrived at by the use of a simple formula must be reported to the nearest OPA field

and through

Speaking of Gas Masks



**Plastic Wonders
will never cease
with the
CUSTOM MOLDER**

This is the angle (speaking) tube of an officer's gas mask, made in six Lumarith plastic parts and two rubber parts. Thin discs of Lumarith sealed airtight within the tube keep gases out but allow passage of sound. The custom molder's art has produced injection-molded parts of watchlike precision to fit together and afford complete protection . . . with the impact strength to stand up under battle conditions.

If you are new to plastics, this gas mask tube will give you some idea of the wonderful things custom molders are doing. Their work is indispensable in speeding production of literally thousands of wartime parts or complete products. You may be converting from metal to

plastics for one or more of the parts you require. Here's how to go about production:

1. Tell us what qualities you want in the part—impact strength; resistance to solvents, acids, water; light transmission; dielectric strength, etc. We select the plastic to give desired results.
2. We put you in touch with the available custom molders best equipped to mold the piece, by injection, compression, extrusion or transfer.
3. The custom molder gives you a quotation.
4. We work with the custom molder in furnishing the formulation of the selected Lumarith plastic that suits all factors of the production technique.

Inquiries invited.

LUMARITH *Plastics*

REG. U.S. PAT. OFF.

CELANESE CELLULOID CORPORATION

the first name in plastics

A DIVISION OF CELANESE CORPORATION OF AMERICA

Business Week • June 5, 1943

CELANESE CELLULOID CORPORATION, a division of Celanese Corporation of America, 180 Madison Avenue, New York City. Representatives: Cleveland, Dayton, Philadelphia, Chicago, St. Louis, Detroit, Los Angeles, Washington, D. C., Leominster, Montreal, Toronto, Ottawa.

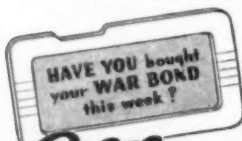


Elliott Address Cards are not rationed

All-fibre Typewriteable Address Cards—like used Elliott Addressing Machines—require no priority. Both are vital workers on today's business front.

Send for your copy of "The Story of a Father and Son"—a fascinating story of inventive genius.

THE ELLIOTT ADDRESSING MACHINE CO.
151 Albany Street, Cambridge, Mass



Elliott
ADDRESSING MACHINES
... for Social Security ... Taxes ... Bill-
ing ... Disbursements ... Collections ...
Advertising ... Record Control ... Pay-
rolls ... Public Utilities ... Insurance
Companies ... Issuing War Bonds.



Agawam Aircraft Products, Inc.	Mall Tool Co.	E. H. Scott Radio Labora-
Sag Harbor, N. Y.	Chicago, Ill.	tories, Inc.
American Art Metals Co., Inc.	The Maxim Silencer Co.	Chicago, Ill.
Atlanta, Ga.	Hartford, Conn.	J. P. Seeburg Corp.
Bard-Parker Co., Inc.,	The Metal Specialty Co.	(Three plants)
Danbury, Conn.	Cincinnati, Ohio	Stamford Rolling Mills
Bermite Powder Co.	Modern Plumbing & Heating Co.	Springdale, Conn.
Saugus, Calif.	Duluth, Minn.	The Tappan Stove Co.
Brown Steel Tank Co.	The Parkersburg Rig & Reel Co.	Mansfield, Ohio
Minneapolis, Minn.	Coffeyville, Kan.	Todd-Johnson Dry Docks, Inc.
Chicago Bridge & Iron Co.	Philadelphia Gear Works, Inc.	New Orleans, La.
Seneca, Ill.	Philadelphia, Pa.	The F. W. Wakefield Brass Co.
Gustin-Bacon Mfg. Co.	RCA Laboratories	Vermilion, Ohio
(Two divisions)	Princeton, N. J.	The Wayne Pump Co.
Hamilton Watch Co.	Revere Copper & Brass, Inc.	Fort Wayne, Ind.
Lancaster, Pa.	Baltimore, Md.	The Weicker Transfer & Storage Co.
Hardie-Tynes Mfg. Co.	Savannah Machine & Foundry Co.	Denver, Colo.
Birmingham, Ala.	Savannah, Ga.	Williams Brothers Corp.
Improved Paper Machinery Corp.		Balboa, C. Z.
Nashua, N. H.		

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week. The nation's food processing plants are eligible for the Army-Navy Production award. Both War and Navy departments have authorized the Food Distribution Administration to nominate candidates to be considered for the honor by the Army and Navy boards for production awards.)

office within ten days of their determination and are to be the sellers' maximum prices; however, adjustments may be ordered by OPA. This regulation does not apply in cases for which a pricing method has already been fixed. (Amendment 54 to GMPR.)

Box Lumber

To meet an increasing demand for lumber needed by manufacturers of boxes used in shipping war supplies, the prices for Sitka spruce box lumber have been raised \$2.00 per thousand b. ft. in each of the three box-lumber grades, in an OPA action narrowing the differential between Sitka spruce boards and box lumber prices by \$1.11. This will result in a saving to the manufacturers, who, because of the shortage of box lumber, have been compelled to buy the Sitka spruce boards. (Regulation 290, Amendment 3.)

Palm Oil

The War Food Administration has announced that palm oil that was sold by manufacturers to the Commodity Credit Corp. from inventory stocks may now be repurchased in amounts equivalent to the original sales, provided that the oil is used by the manufacturers in their own

operations and in accordance with other fats and oils regulations.

Used Machines

A new classification—Class B—has been established to cover slightly used, almost new industrial sewing machines, machines, and parts to facilitate the pricing of a considerable amount of secondhand machinery that the Procurement Division of the Treasury Dept. wishes to sell to war industries. This action permits a price that is 75% of the ceiling on new industrial sewing machines for those in Class B, instead of the 55% allowed for used machines "as is" (BW—May 22 '43, p. 47). Prices for other secondhand machinery are determined similarly. (Regulation 375, Amendment 1, for used industrial sewing machines; Regulation 136, Order 48, for used machines.)

Dyes

An exemption from the order covering dyeing of used garments and household furnishings permits commercial dyers to procure all the dyestuffs and organic pigment needed for this purpose, so as to conserve materials that would otherwise be discarded. The exemption applies also to dyes used for food, drug, and cosmetic colors. (Order M-103, as amended.)

INSURANCE

Air Premium Row

Proponents of Lea bill say reinsurance pool has its roots abroad, that postwar operation should be controlled here.

The Civil Aeronautics Board will report in a few weeks on a bill by Rep. Clarence Lea proposing government yardstick insurance for air transport. The bill would empower the board to provide air insurance and reinsurance against loss due to war and reinsurance against ordinary air risk.

• **Many Charges Made**—Sponsors contend that there is a reinsurance monopoly in this country with its roots in Lloyds of London; that American air operators cannot bargain for reinsurance; that rates are based on arbitrary judgment and on some horse-trading; that small companies cannot get in on the business; and that military information is syphoned abroad under the present system.

More introduction of the bill has already brought new rate proposals by some underwriters. Sponsors of the measure expect that enactment would prod the scrapping stock and mutual companies into cooperation that will enable them to write air reinsurance at home. (Big postwar airplanes and costly transoceanic cargoes, with heavy liability and crash risks, will call for ever greater spreading of risks and pooling of reserves.)

• **A Postwar Program**—The Lea bill is modeled on merchant marine war risk legislation of 1940 and 1942. The marine law has a clause providing termination within six months after the war ends; Lea's bill, H. R. 1992, is pointed toward postwar operations.

Its perpetuity is one reason why a few airline operators want to study it further before supporting it. They want to make sure that this insurance program does not mean the attachment of any more federal wires to their industry. But there is no concerted opposition to the bill either in air transport or in underwriter circles. Some insurance companies are lobbying energetically against Lea's proposal while others are talking it up.

• **For Domestic Control**—Nobody attaches blame to the British. The aim is simply to get reinsurance of air transport under home control. Neither does any one want to agitate U. S.-British air relations, and, of course, no one wants to be quoted.

The Air Transport Assn. is said to be writing a report on the bill, but no

Supplying Dependable, Economical ELECTRIC POWER for Industry



PUBLISHER

Famous metropolitan newspaper in Los Angeles, Cal. Three horizontal "UNIVERSAL UNAFLOW" Steam Engines, driving 572-kv.a. A-C generators. Exhaust steam used for building heat and air conditioning. Installed in 1934.



OFFICE BLDG.

Prominent building in Philadelphia, Pa. Three horizontal "UNIVERSAL UNAFLOW" Steam Engines, driving 250-kw. D-C generators. Installed in 1922.



DEPT. STORE

Large store in Cincinnati, O. One vertical, three horizontal "UNIVERSAL UNAFLOW" Steam Engines, with D-C generators. One 300-kw. (1916); two 250-kw. (1927); one 800-kw. (1937). Exhaust steam used for building heat and air conditioning.

SKINNER "UNIVERSAL UNAFLOW" STEAM ENGINES

FOR three-quarters of a century the Skinner Engine Company has been building steam engines exclusively. The performance of Skinner Engines has been so outstanding that they have achieved the reputation of being "the most economical steam engines ever built."

Skinner "Universal Unaflow" Steam Engines, horizontal or multi-cylinder vertical, drive generators that furnish electricity for light and power to many of the nation's best known hotels, hospitals, department stores, office buildings and diversified industrial and institutional plants. By generating their own electric current instead of buying it from the local utility companies, these owners have saved millions of dollars in power costs. Other Skinner Engines drive compressors, pumps and blowers for refrigeration and air conditioning installations.

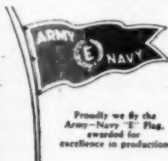
Tomorrow profits will come from economy. As in the past, many efficient power users will find that in no other department of their business can savings be effected equal to those made by using Skinner "Universal Unaflow" Steam Engines to generate power, utilizing the exhaust steam for heating and processing purposes.

Dependability and permanently maintained economy are inherent characteristics of Skinner Poppet-Valve Unaflow Steam Engines, and are largely responsible for the fact that more than 25% of all orders received are repeat orders. This is not only a high tribute, but also is testimony of complete satisfaction.

Although you may have a seemingly low rate per kilowatt-hour for purchased power, it will pay you to investigate, for postwar planning, how much lower your cost will be for power generated by Skinner Engines.

Our production facilities, at present, are devoted entirely to building Skinner Unaflow Steam Engines for the war program.

INVEST TODAY IN BONDS FOR VICTORY



Proudly we fly the Army-Navy "E" Flag, awarded for excellence in production

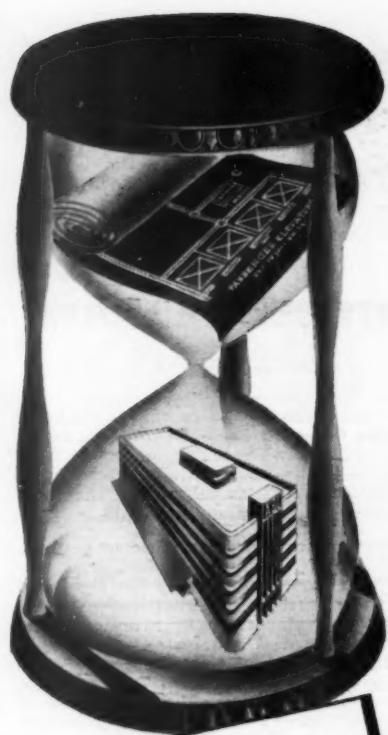
Our Seventy-fifth Anniversary
1868 - 1943

BAKERY

Nationally-known bakery in Buffalo, N. Y. Five horizontal "UNIVERSAL UNAFLOW" Steam Engines: one 167-hp., driving ice machine; four with A-C generators. Three are 250-kv.a., one 312-kv.a. Installed in 1922, '24, '28. This company has purchased 25 "UNIVERSAL UNAFLOW" Engines.



SKINNER ENGINE COMPANY FOUNDED 1868 **ERIE, PA.**



*When the
FUTURE BECOMES
THE PAST!*

New buildings and remodeling projects now being planned will some day be completed and in use. When that time arrives, the materials and equipment in these buildings are important. Where freight or passenger elevator equipment is required, use Montgomery. Proof of the fact that they deliver is found in Montgomery's sales record. During 1941, a typical year, 72% of all the Montgomery Elevators installed were sold to previously satisfied customers. Many of these firms have used Montgomery Equipment over a period of 30 years. Investigate Montgomery Elevators for use where vertical transportation is required. Complete "Elevator Planning Service" available on request.



**MONTGOMERY
ELEVATOR COMPANY**

HOME OFFICE - MOLINE, ILLINOIS
Branch Offices and Agents in Principal Cities

statement has been made. Some members of the association say the report will be strongly favorable. The House Interstate & Foreign Commerce Committee is much interested, but no hearings are planned before fall.

At present, according to an insurance spokesman, two insurance company pools are handling the air transport business, which includes fixed base contract operators (charters, irregular trips) as well as certificated scheduled carriers. The airlines themselves have considered two pool plans of their own; the mutual companies have proposed a pool, and so has Braniff Airways.

Insurance Test

Fire companies argue in antitrust action that federal authorities are infringing state regulatory rights.

The Southeastern Underwriters Assn. and 196 fire insurance company members launched their effort in U. S. District Court in Atlanta last week to nullify indictments charging them with conspiracy to violate the Sherman Antitrust Act. Their attack was on the grounds that the indictments violate states' rights because "fire insurance is not commerce."

• **Pleading is Weighed**—Following the hearing on a demurrer brought by the defendants, Judge E. Marvin Underwood took the pleading under advisement. The case is the first action by the federal government against fire insurance companies. Indictments were returned last November.

Defense attorneys Dan MacDougald of Atlanta and John T. Cahill of New York in their arguments declared the action a direct attack by the Antitrust Division on state regulation of insurance. "Free competition rates are unstable and therefore discriminatory," they said, "and state-sponsored restraint of competition in fire insurance cannot be enjoined or prosecuted."

• **D. of J. Attitude**—Frank H. Elmore, Jr., and Manuel M. Gorman, attorneys for the Justice Dept., based their arguments on the definition of commerce, which they contended applied to exchange of any type of commodity. "If the states cannot control business done by insurance companies out of their boundaries, and neither is the federal government allowed to control this business, a vacuum will be created. No business should be so completely unregulated," the federal attorneys said.

Elmore insisted the case was not a "test case or cause celebre," but only the beginning of federal investigations and indictments of all combinations of the insurance business. Many other

legal minds differ with him on the point, however, and even other federal attorneys speaking "off the record" say this definitely is a test case.

• **All the Major Concerns**—The 196 companies involved do business in all parts of the United States, in Canada, Scotland, and England, and they include virtually all the larger fire insurance companies. The indictment charges the association and its affiliates with conspiring to "fix and maintain arbitrary and noncompetitive premium rates on fire insurance" sold in Georgia, Florida, North Carolina, South Carolina, and Virginia.

Apparently having no connection with the court case, but an interesting coincidence nevertheless, is the fact that the Southeastern Underwriters Assn., on the eve of the demurrer hearing, announced a reduction of fire insurance rates for owners of certain dwellings in five southern states.

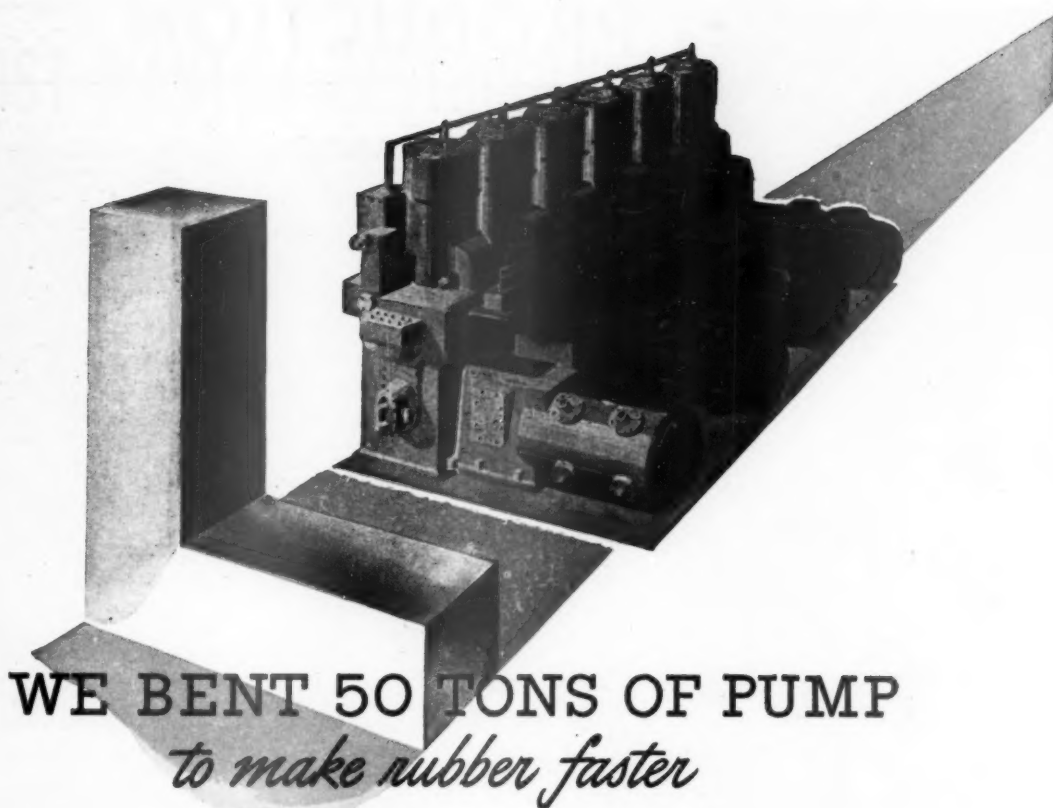
Principal rate change is elimination of charges for "dwelling-to-dwelling exposure." For instance, in Atlanta, if a home is located within 25 feet of its neighbor, it has been subject to a charge for such hazard. That charge is discontinued.

The reduction in the five-state area was made in the face of a general increase in fire losses throughout the nation, simply because the losses on this class of dwelling in the Southeast have shown a decline in the last several years, the companies said.



V FOR STEVENS

Victory symbol to soldiers attending radio school at Chicago is the V in the big signboard still hanging from the 3,500-room Stevens Hotel now owned and occupied by the Army (BW—Jan. 2'43,p18). Behind the V, a corporal prepares to fire the retreat cannon for the daily sundown ceremony across the way in Grant Park.



WE BENT 50 TONS OF PUMP *to make rubber faster*





THE BUTADIENE
MOLECULE

Much of the synthetic rubber program is based on a liquid with the queer sounding name, butadiene.

You get it out of oil. At several stages in the process gases must be compressed, large quantities of them.

Everybody knows what a compressor is. It's a kind of pump. An engine drives a piston which squeezes gas down to its size. For years, everybody thought the way to increase the capacity of a compressor was to make all the parts bigger, stretch them out farther along the floor, and who cares about space or weight.

Not so our Clark engineers.

They said, "why not make this  into this .

So was born the Clark Angle Compressor. That sound engineering idea makes *half the weight* of metal do the same work in *half the*

space, because for one thing, it is possible to run such a compressor at higher speeds.

Small wonder that the synthetic rubber program, expanding under metal stringency, turned largely to Clark Angle Compressors.

Clark is one of our seven Dresser Industries. Independently managed, but strengthened by Dresser resources and many other group facilities, Clark has become a leader in its field of gas-engine and Diesel-driven compressors.

There is a point to all this. Clark is greater because it is a Dresser Industry. All Dresser Industries are greater because of Clark. The same holds for each of our independently managed, but well-teamed units. It is a type of management which has already made major contribution to war production. It may well be a management pattern which will appeal to planners who seek special facilities and sure-footed co-operation in manufacturing and marketing areas in the future.

DRESSER Industries

BRADFORD, PA.

DRESSER MANUFACTURING CO., BRADFORD, PA.
Pipe Couplings; Fittings; Repair Devices

CLARK BROS. CO., INC., OLEAN, N. Y.
Gas and Diesel Engines; Gas and Air Compressors

VAN DER HORST CORP. OF AMERICA, CLEVELAND, O.; OLEAN, N. Y.
Porus-Krome Processing of Engine Cylinders

THE DRYANT HEATER CO., CLEVELAND, O.
Gas Heating Equipment; Air Conditioners

PACIFIC PUMP WORKS, HUNTINGTON PARK, CAL.
Pumps: Hot Oil; Centrifugal; Deep Well; Special

BOVARD & SEYFARTH MFG. CO., BRADFORD, PA.
Oil Well Supplies and Accessories

DRESSER MANUFACTURING COMPANY, LTD., TORONTO, ONT., CANADA
Affiliate of Dresser Mfg. Co., Bradford, Pa.



Up there alone, hobnobbing with the scudding clouds in the white-flecked azure, what's in the back of his mind, while he scans an ocean monotonously empty?

There are long and glamorless stretches to patrolling. Plenty of time to think—in a detached way that doesn't distract his watchful eyes from sea or instrument panel. . . . Plenty of time to see a sunlit street, a campus path, a breath-catching moment of bashful ardor under a genial moon. Whatever the image, it stands against the background of coming home to opportunity, to work, to fulfillment.

And that's what it will be if production is pushed, if paydays are bond-days and if spare hours are devoted to plans for supplying post-war markets—and thereby a job and home for this boy. *It's his due.*

There'll be a hunger for the goods we've done without, but they'll not be identical goods. They'll be improved or entirely new. Made, quite probably, with machines that have yet to be built—machines that are typical of American ingenuity—perhaps even like some of those developed and made here at FIDELITY and described in "Machines and Mechanisms."

Write for this illuminating book.

★

*Designers and Builders of
Intimate, Automatic Precision Machines*

32 YEARS' EXPERIENCE

**FIDELITY MACHINE
COMPANY**



3908-18 FRANKFORD AVENUE
PHILADELPHIA, PA.

PRODUCTION

Rubber is Easing

Restriction on tire sales won't be lifted, but there will be enough rubber for the services and civilians in key jobs.

Rubber Director William M. Jeffers probably will go down in United States history as the man who piloted a successful transition of basic rubber production from the jungle plantation to the industrial plant. Jeffers didn't make the grade alone, but he mounted to the cabin before the engine had a full head of steam and kept a strong hand on the throttle.

• **First-hand Inspection**—Evidence that the transition will be completed successfully this year has been piling up: Jeffers' progress report No. 3; first-hand inspection stories from Charleston, W. Va., by reporters who were conducted through the government's new 90,000-ton integrated rubber plant; agreement of top-flight technicians that quality of the new rubber is satisfactory and that manufacturing problems are being solved.

This doesn't mean there will be unrestricted sale of tires this year, or next. Rationing of tires seems certain to continue through 1944. It does mean that enough rubber will be produced this year and next to give the Army and

Navy a chance to go back to the use of rubber in every instance where its use is held desirable, and enough rubber to dole out first-quality automobile tires to civilians in essential occupations who can convince ration boards that new tires are needed.

• **Plenty of Used Rubber**—There's plenty of used rubber to keep nonessential cars rolling on retreads. The supply of used rubber is estimated officially as equal to two years' supply (BW—Jan. 23 '43, p. 17), but trade estimates place it higher.

Jeffers' report places the number of new tires available to civilians this year at 12,000,000, including 7,000,000 leftovers from rubber imported before Pearl Harbor and 5,000,000 from new synthetics, and next year, there will be 30,000,000, all from synthetic. These may be enough if ration boards are realistic about allowances. Recent complaints have come from war boom areas that new tire supplies will cover only 70% of ration board allotments.

• **Clearing Up**—Confusion that arose from conflicting programs, such as aviation gasoline and escort vessels, from conflicting personalities, and from conflicting statements of government officials and rubber, chemical, and oil companies gradually is clearing up.

Four months ago the outlook was that our rubber stocks, by August or September, might fall below the 100,000-ton level held necessary to maintain steady operation of the fabricating plants. Today, with the Baruch

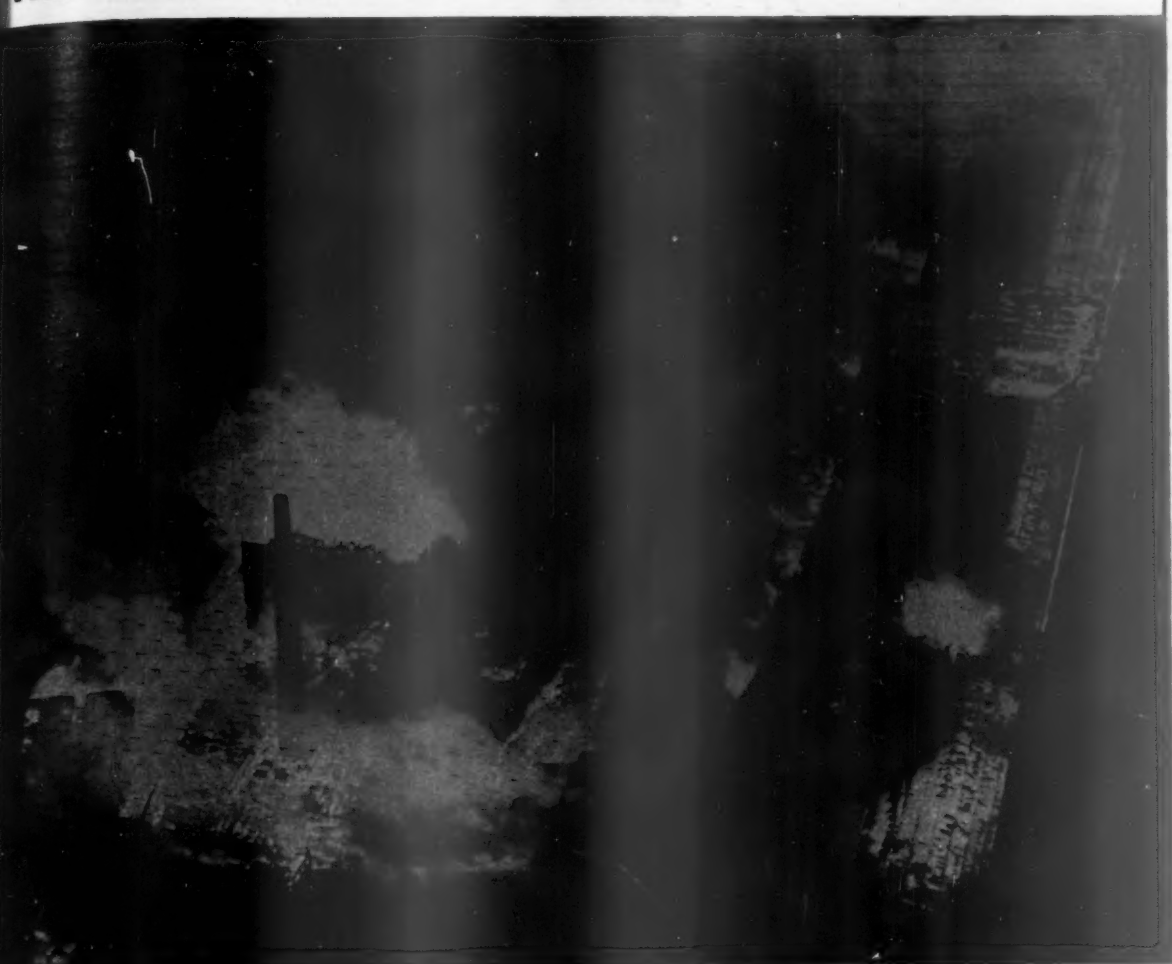


BOMBS IN THE WORKS

In two automatic operations, Wheeling Steel now turns out aerial bomb casings in a fraction of the time formerly required. Induction-heated by

Ohio Crankshaft's Tocco process, 500-lb. casings roll from the inductor (above) at 2,000 F. and go by conveyor to automatic spinners for end-shaping. Both nose and tail are heated and shaped within 14 minutes.

THE MOST WANTON DESTRUCTION IN HISTORY



HERETOFORE, WHEN FIRE STRUCK, it was a calamity to an individual business enterprise. Even with insurance protection for plant and materials, experience has proved that loss of records, customers and employees has crippled a burned-out business in at least two out of every five instances.

But today, when fire destroys a plant or vital war materials so sorely needed by our fighting forces, it is little less than a national calamity. Where such destruction occurs in spite of the fact that *it could have been prevented*, it is literally the most wanton destruction in our history.

Fire CAN Be Controlled! The one sure way to control fire is at its source, when it starts... with Automatic

Sprinklers! Grinnell Sprinkler Systems detect and check fires *automatically*, night or day, before major damage can occur.

The Cost in materials is LOW One Grinnell Sprinkler Head protects 100 square feet of building space. Installed, it needs only about 50 pounds of pipe, fittings and valves... yet it can save tons of structural steel and other critical materials. This comparatively small expenditure of materials can provide the 24-hour-a-day protection against fire which will keep your plant producing and helping to win the war instead of becoming a charred heap - useless when so desperately needed.

Get in touch with Grinnell today, *before fire strikes!*

Grinnell Company stands ready to protect your warehouse or plant against fire. Experienced engineers at nearby offices are ready to help you. Call them. Grinnell Company, Inc., Executive Offices, Providence, R. I. Branch Offices in principal cities.



GRINNELL

AUTOMATIC SPRINKLERS

For Production Protection



What else can the war do to your food products?

WELL, to face the problem squarely, it might put your favorite brand out of business—permanently.

That is precisely what can happen to food products which do not fit into the requirements of the National Nutrition Program. The future is dark for foods which do not deliver maximum nutritional values.

If your product is a logical one for vitamin enrichment or fortification, *now is the time to get going.*

And if you are or will be in the market for vitamin A, get the facts about what we believe to be the finest vitamin A concentrate obtainable.

Distilled Vitamin A Esters* is the name. This concentrate of vitamin A in the natural Ester form is produced by molecular distillation in high vacuum, a process which gives the resulting concentrate several unique advantages.

Distilled Vitamin A Concentrate in the natural Ester form is scientifically uniform in quality, high in potency, two to ten times more stable in heat, light and air than any other commercial concentrate we have tested. Exceptionally bland, this vitamin A does not impart taste or odor to foods or pharmaceuticals.

Write for our new illustrated brochure, "The Story of Vitamin A Esters." And get complete information and performance data for your technical men.



*Protected by U.S. product patent No. 2,205,925 and more than 50 process patents.

DISTILLATION PRODUCTS, INC.

755 RIDGE ROAD WEST, ROCHESTER, NEW YORK

Jointly owned by EASTMAN KODAK CO. and GENERAL MILLS, INC.

Sales Agent: Special Commodities Division, General Mills, Inc., Minneapolis, Minn.

*"Headquarters for Oil-Soluble-Vitamins
and High-Vacuum Equipment"*

program cut back to 79% of the recommended 1,074,000-ton capacity, estimated that this year will end with 142,000 tons on hand and new synthetic capacity of 850,000 tons a year. Supplies, crude and synthetic, for year 1943 are estimated at 308,000 tons enough to get us safely over the hump.

The problems of the new synthetic now are quality and adaptability. As tires are concerned, these problems have been solved, with the exception of heavy-duty tires, which still require about 30% natural rubber to prevent overheating in service. Although Jeffers reported only 54,000 tons of this year's 308,000 tons of new supplies would be natural rubber, it seems certain there's enough natural left over in the stockpile for compounding with synthetic where necessary. Trade rumors denied in official quarters, have said quantity of Far East rubber had been coming to the United States by way of Japan and Russia (BW—Feb. 6 '43). Jeffers' latest estimates of this year's rubber supply also include 218,000 tons of GR-S (Buna-S), 17,000 tons of GR-I (Hycar Chemical's Hycar and of butadiene-acrylonitrile type synthetic), 11,000 tons of butyl rubber (GR-I), and 29,000 tons of Neoprene (GR-M).

• **Two Operations**—Formal opening of the plant at Institute, W. Va., demonstrated that the government rubber program is moving along under full steam. The plant consists of two operations: butadiene and styrene production under management of Carbide & Carbon Chemicals Corp., and polymerization of these two chemicals to make GR-S rubber, under management of United States Rubber Co.

Butadiene production began first few months ago. From Institute, Carbide & Carbon has been shipping butadiene polymerization plants far and near. Now, each of the four 20,000-ton butadiene units, using grain alcohol as feed stock, is in operation. One of two 12,500-ton styrene units is operating, the other will be in production within a few weeks.

• **Only One Unit Now**—The polymerization plant is operating only one of its 30,000-ton units. The other two are expected to be going full blast in July.

The works cost an estimated \$56,000,000. Construction was begun in April 1942. Plant output is rated sufficient to make 16,000,000 passenger car tires a year. To produce this quantity of natural rubber would require an investment of \$80,000,000 in a 270,000-acre plantation (24,000,000 trees) and 50 years' time to start producing. The plantation labor force would be 90,000 as against 1,250 at Institute.

Butadiene from petroleum also has reached the large-scale production stage. Standard Oil Co. of Louisiana, opening its Baton Rouge refineries to official inspection this week, displayed better than designed output—about 100 tons a day.

Take a Look at TOMORROW-*Today!*

Mr. Now: They sure keep a'running—you'd never know a Century Motor was hidden down here.

Mr. Postwar: I didn't know that machine was Century equipped. From now on I'll specify Century.

QUIET AND OFTEN UNSEEN BUT ALWAYS VITAL!



Century Form J
Motor

Century
MOTORS

Not only on machine tools, but on many widely varied applications, the electric motor may be hidden from sight. Yet, because the machine performance depends to such a large extent upon the motor and its characteristics, it is one of the most vital parts.

In thousands of applications, particularly on machine tools, Century Motors are the unseen, dependable servants of the machine operators. They'll run quietly, continuously, and with an unusual freedom from vibration that contributes much to precision workmanship.

Today, under the rigid demands of Wartime production, Century is developing even finer motors than we have made in over forty years of manufacturing—motors that correctly match the demands of the machine and which are properly protected against surrounding conditions as well.

Remember the importance of the motor, even though unseen — and it will pay you to think of Century in your postwar planning.

CENTURY ELECTRIC CO., 1806 Pine St., St. Louis, Mo.
Offices and Stock Points in Principal Cities

324

1/6 to 600 horsepower.

One of the Largest **EXCLUSIVE** Motor and Generator Manufacturers in the World

Plant frees two men
with one **SALSURY**
Lift Type turret truck



**...AND MOVES SAME
LOADS TWICE AS FAST!**

Here are the facts: At California Warehouse Company, Los Angeles, three men using a hand lift truck move a 2,000-lb. skid load at 2 miles per hour from warehouse up steep ramp into truck. One man with a Salsbury Lift Type Turret Truck moves the same load from warehouse to truck at speeds from 4 to 5 miles per hour. Result: 66⅔% saving in labor cost per load, 100% faster load handling... Salsbury Lift, Cargo or Tractor Type Turret Trucks can solve your load-handling problems. Write Dept. T-41 for literature and prices.

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"Miracle" Drug

About to emerge from the laboratory, penicillin is believed to out-sulfa the sulfas without ill effects on patients.

Penicillin, the new "miracle" drug which is reported to out-sulfa the sulfa compounds, is expected to move from the pilot plant and clinical laboratory into actual production and therapeutic use in the near future. Laboratory, production, and clinical research on the product are being spurred by the military which wants the drug as soon as possible for military use. Under government sponsorship, a score of pharmaceutical companies are competing for the scientific and commercial honors that will go to the first to lick mass production.

• **A British Discovery**—Penicillin was first discovered in London in 1929, but its therapeutic possibilities were not reported in British journals until 1940 and 1941. In 1941, the Rockefeller Foundation sponsored a visit to the U. S. of the noted British penicillin authority, Professor H. W. Florey.

As a result, work on the drug was started at the Dept. of Agriculture's northern regional laboratory at Peoria, Ill., under Drs. R. D. Coghill and A. J. Moyer. The department's interest in the matter stems from the fact that penicillin is produced by the metabolism of a certain type of mold that can live off farm products.

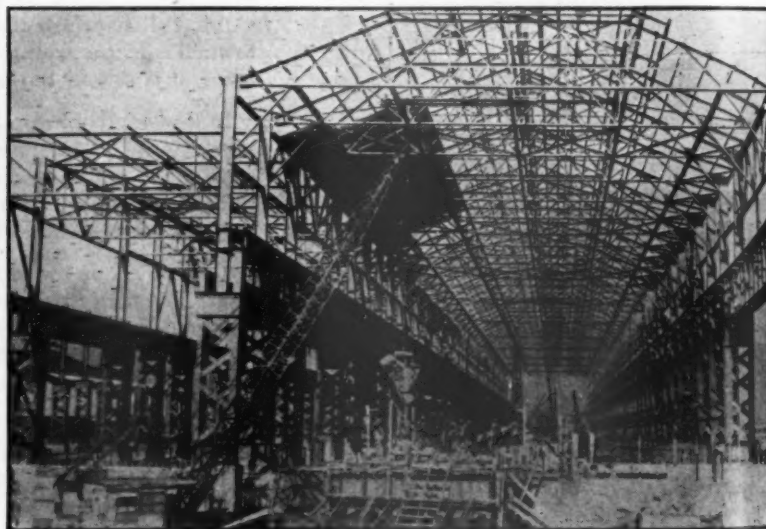
• **Two Groups in Charge**—The commercial race to produce penicillin also

started in the fall of 1941, but government men say that production is in the pilot plant stage. Government direction of penicillin research handled jointly by a committee on medical research of the Office of Scientific Research & Development, headed by A. N. Richards, and the Division of Medical Sciences of the National Research Council.

According to a recent statement by Richards on the progress of penicillin research, the difficulties that confront mass production arise "chiefly from the fact that in the metabolism of the mold only very minute amounts of penicillin are formed and those only after death of growth."

• **Preliminary Tests**—Clinical research was started in June, 1942, and is now going on in a score of selected hospitals. In addition, the Surgeon General of the Army started clinical tests at the Army's Brigham City (Utah) hospital on soldiers returning from the Pacific areas. Other clinical studies of wounds will be started in ten additional Army hospitals, while studies will be started on the effect of the drug on venereal diseases in six other Army hospitals. The Navy also is working on clinical use of the drug.

In a statement published in the Journal of the American Medical Association which generally is conservative on therapeutic claims, Richards said that 300 patients have been treated with the drug, and thus far the results have upheld all early promises. He said there is good reason to believe that penicillin is "far superior" to all the sulfonamides in the treatment of staphylococcus infections, including osteomyelitis, etc.



PRODUCTION NOW

Even before its rolling mill is completed (above), a steel plant is producing needed aircraft and ship metals. Republic Steel's expansion of its

South Chicago works will not be finished before midsummer, but two or three electric furnaces already are in operation. When completed, the project will be entirely integrated from ore docks to finishing mills.

bunches of the lip and face, pneumonia, and infected wounds and burns. He added that it is effective against streptococcus, gonorrhea, and other infections, certain types of which are resistant to the sulfas.

● **Advantages Claimed**—Of equal importance is the fact that no untoward results have yet been noticed from the administration of this powerful drug, even in cases where the patient is very sick. Although they possess almost miraculous curative powers against many hitherto fatal infections, almost all of the sulfas cause some type of reaction in the patient. Because of this, the Food & Drug Administration is expected to give speedy clearance to "new drug" applications covering penicillin.

Sulfanilamide, the first of the sulfa family, was introduced in the U. S. in 1937. Originally, it was used against all types of infections but now is primarily the drug of choice only for local use. While it is still used against internal infections, later members of the sulfa family have largely replaced sulfanilamide.

● **Others in the Family**—Introduced in 1939, sulfapyridine was the second member of the family. The two major sulfas now in use are sulfathiazole and sulfadiazine both introduced in 1941. Sulfadiazine is reputed to be the least toxic of all the sulfas, but both are widely used for staphylococcus and streptococcus infections, pneumonia, meningitis, and venereal diseases. Sulfaguanidine and sulfasuxidine, both of which have unusual therapeutic properties in the treatment of dysentery, were introduced in 1941. Both have had wide usage in tropical and North African theaters of war.

The least known of the sulfa family is sulamyd, which is used in the treatment of the urinary tract. Another, sulfamerazine, is still in the research stage but probably will be marketed in the near future. In addition to these basic members of the sulfa family, there are hundreds of additional derivatives, compounds, forms, and combinations.

PRESSED METAL DRIVE

Last week, the new Pressed Metal Institute began its first membership drive. Ever since its initial meeting in March of this year, when some 60 representatives of sheet and strip metal fabricators, rolling mills, and metal press builders banded together, it has been in the throes of organization.

Final incorporation papers have now been signed, national headquarters established at 19 W. 44th St., New York City, constitution and objectives set forth in a colorful brochure. Next step is to bring the membership up to approximately 500 of the 1,000 or more factors in the metal stamping field.

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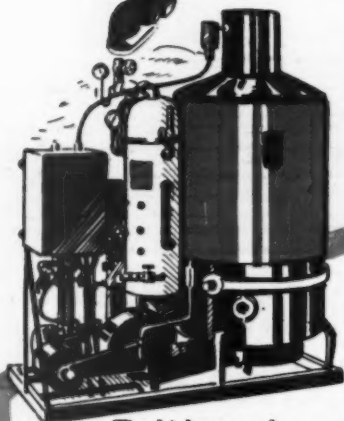
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The comparative size of a Clayton flash type steam generator and a conventional boiler of the same rating is clearly shown above.

CLAYTON
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ALHAMBRA
CALIFORNIA

NEW PRODUCTS

Steel Identifier

Several working installations of the new Identometer are supplying evidence that inexperienced operators can be readily trained to classify "unknown pieces" or lots of steel (or any other ferrous alloy) according to: (1) heats—identical analysis; (2) grades—similar analysis; (3) types—dissimilar analysis; (4) heat treatments—identical analysis with dissimilar structures; (5) composite types—clad metals, shear knives, etc.



The instrument, which is about the size of a cabinet radio and operates on the same principle as a thermocouple, can be wheeled to any place in a plant or laboratory where there is an alternating current supply. A known reference sample is affixed to one of two clamps, and the unknown specimen to the other. When the two pieces of steel are brought into contact and a current run through them to heat them slightly, they act as a thermocouple, producing a measurable electrical current if dissimilar, none if similar, and showing either fact on a dial.

Tests can be made in just a few seconds, whether on pieces in a pile or on parts that have been assembled into a structure—making it possible for the first time to be sure that a particular steel has been used in a specified location. The manufacturer of the Identometer is American Tubular Elevator Co., Pittsburgh; the national distributor is Dravo Corp., Pittsburgh.

Dual Diagonal

Long before Pearl Harbor, the Visible Index Corp., 535 Fifth Ave., New York, brought out the Visirecord system of filing, wherein a diagonal margin at

Don't laugh at old Diogenes!

EVEN if Diogenes *did* spend his days, lantern in hand, looking for an honest man, it wasn't such a joke as one might think. For there is no certain method of determining whether an individual will remain honest through the years. Take case No. 167014 from U. S. F. & G. files. Credit manager and treasurer of a manufacturing company, he was 36 years old, father of two children, and a model of propriety. Yet he embezzled \$26,668.21 from his employers. Fortunately they were insured against employee dishonesty and suffered no loss.

Illustrated on this page are other cases showing some of the hazards that demand insurance protection. Your local U. S. F. & G. agent will be glad to make a wartime audit of your present insurance program to help protect you from financial loss. He is one of thousands serving communities throughout the U. S., its possessions, and Canada. Consult him today.

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Business Week • June 5, 1943

Try laughing these off

(Actual Cases from U. S. F. & G. files)



Case No. 11-A-654

Coffee Scalds Yachtsman

Precious as coffee is, the pot held too much to suit the mid-west executive . . . for when the boat rolled, the coffee spilled, severely burning him. Fortunately he carried accident insurance with U.S.F.&G. and received \$737.00 for medical expenses and time lost from work. Would you be similarly compensated?



Case No. 35-B-198

Hard-Working Burglars

Determined indeed were the burglars who climbed to the winery's first floor roof, forced a window, cracked the safe, and ripped out the "burglar-proof" chest inside. Their loot . . . over \$600. But thanks to burglary insurance with U.S.F. & G., the owners were spared this loss. What about *your* place of business, *your* home?



Case No. 21-G-1297

Wind Shatters Glass

The big blow in the little Pennsylvania town might have been a severe financial blow to the main street shopkeeper . . . for it shattered his plate glass display window. But the shopkeeper had been wise enough to insure his window through U.S.F.&G. and so was spared any loss. Are your glass windows and doors insured?



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Hot, corrosive, exhaust gas that blasts from the auxiliary motor of a giant bomber must be harnessed! For it is this motor that turns out electric current to start the engines, run ventilating equipment, keep the radio on the job and operate the landing gear. And this is a perfect job for *Stainless Steel* because, in addition to providing the exhaust collector ring with heat resistance, *Stainless* gives corrosion resistance plus strength with light weight—and freedom from the effects of vibration.

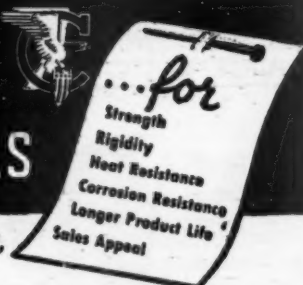
These same advantages of Carpenter Stainless Steel can be given to your new and re-designed products. Your nearby Carpenter representative can help your de-

signers and production engineers pack extra usefulness and longer life into your products, by helping them pick the best type of *Stainless* for the job. He will bring to your men a wealth of practical experience gained from working with users of *Stainless*. And he will keep you in close touch with our Metallurgical Department.

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the right-hand top corner of each card and an ingenious method of overlapping cards in a drawer or other container give to a vertical system of filing the quick get-at-ability of a "visible system." In inventory control, for example, such a system renders the name of a given material or part instantly visible on the di-



agonal margin. Equally visible on the exposed righthand edge of a card is the balance of the item available in stock.

But since the war, and especially since WPB put its Controlled Materials Plan into operation, it is necessary to have a third item of inventory information instantly visible on a card—the amount of allocated material available to a given contract. Hence, Visible Index has developed the Dual Diagonal Margin which makes visible two classes of information on the corner of a card in addition to that on a card's edge. Though it was invented primarily for CMP purposes, it appears to be a natural for certain other types of record keeping and filing, notably in personnel work.

Semi-Plastic Closures

If you look closely at the illustration, you will see that Semi-Plastic Closures,



new products of the recently organized Closure Corp., Room 5215, 405 Lexington Ave., New York, are really rings of plastic which secure heavy paperboard disks to the tops of tumblers or other glass containers. Since the rings are molded in cone form, with two to ten

card
ping
give
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In
ch a
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erent sizes in a single mold, they save
with critical mold steel and the amount
plastic represented by the disks.
Three adaptations of the closure have
en thus far developed: (1) slip-on, or
ection-fit, type for containers like
mblers with a plain tapered finish;
screw type for threaded containers
e those used for cosmetics; (3) snap-on
e for containers with a "beaded" rim.
ade marks and other information can
printed on the disks. Closure Corp.
ll not manufacture but is already ne-
tiating licenses with plastic molders.

and Cleaner

Flammable and sometimes explosive
vents normally used to remove paint,
rnish, lacquer, enamel, synthetic adhe-
es, or airplane dopes from the hands
ve a new rival in Den-Tex. It is a new
onexplosive, nontoxic cleansing cream
mulated by Dennis Chemical Co.,
701 Papin St., St. Louis, which is to be
merely worked into paint or lacquer on
ands, which then readily rinses off with
water, leaving the pores open and clean,
and the skin soft."

New Products Briefs

Also reported this week, not only for
their interest to certain designated busi-
ness fields, but also for their possible im-
port in the postwar planning of more or
less allied fields and business in general,
are the following:

• **Electrical**—Ten different insulating var-
nishes—some new, some old—are being
ffered by the Sterling Varnish Co.,
Haysville, Pa., under the trade name
"Thermobonds." From them can be se-
lected suitable insulating mediums for
most types of electrical coils.

• **Communications**—Military carrier pi-
geons are being equipped with new
lightweight Plastic Message Capsules,
made by Lusteroid Container Co., South
Orange, N. J., to replace aluminum cap-
sules used in the World War.

• **Metal-Working**—Parts as small as $\frac{1}{32}$
in. long and 0.005 in. diameter, and as
large as 2 $\frac{1}{2}$ in. long and $\frac{1}{16}$ in. diameter,
can be machined with speed and accu-
racy on the Gorton 16-A Precision Auto-
matic Screw Machine, new product of
the George Gorton Machine Co., Ra-
cine, Wis. Because it is a modernized
development of the Petermann P-7 Swiss
automatic, all tooling, cams, and attach-
ments of the two machines are inter-
changeable. . . . Universal Vise & Tool
Co., Parma, Mich., is bringing out the
new "Roll-In" Metal Cutting Bandsaw
for contour, trim, and cutoff work. Al-
though its continuous saw blade cuts
vertically, it feeds into the work on an
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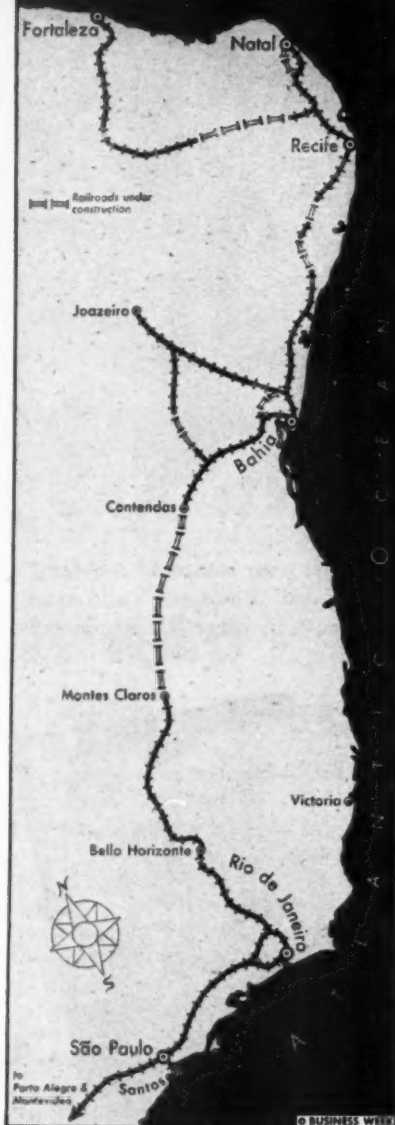
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BRAZIL'S COASTAL LIFELINE



When submarine warfare in the Caribbean and South Atlantic stopped regular ship runs between highly developed southern Brazil and the more backward regions in the north, the Amazon Valley and Fortaleza, Natal, and Recife along "the bulge" were threatened with disastrous shortages of everything from salt to gasoline—all of them normally imported by sea. Goaded by this crisis and by mounting determination to industrialize the country, Brazilian authorities decided to fill the gaps in the long-projected coastal railroad. With the aid of United States priorities on rails, and by commandeering masses of laborers, the gaps are rapidly being closed.

THE WAR—AND BUSINESS ABROAD

Brazil's Industry

Republic makes stern bid to join manufacturing leaders in years to come; U. S. capital shows growing interest.

SAO PAULO, Brazil—Brazil's desperate effort to meet wartime shortages of normally imported manufactured goods by setting up hundreds of small domestic factories is beginning to get a boost from private business in the United States. This marks the country as an ultimate contender for a place among the great industrial powers.

● **Steel Next Year**—Products manufactured in Brazil as a result of the new industrialization drive range from paper to iodine, and from shells to caustic soda (BW—Mar. 6 '43, p. 46). The new steel plant at Volta Redonda (BW—May 3 '41, p. 66) will be turning out finished products by the end of 1944. Copper imports from Chile have been boosted to keep the small electrical industry operating at capacity. The freight car shortage has given a boost to local shops which now produce cars made entirely from local materials.

The annual value of finished goods production has jumped from \$170,000,000 at the end of the last war, and \$1,000,000,000 in 1938, to almost \$2,000,000,000 in 1942.

● **U. S. Capital Takes Part**—Despite a trend toward full government control of certain industries (like petroleum) and strong regulation of others (like coal and copper mining), private capital from the United States is beginning to show an active interest in Brazil's industrial future, and representatives of some of the largest companies north of the Rio Grande have been in Brazil recently exploring manufacturing opportunities.

A patent deal is already signed providing for the building of Wright Whirlwind engines in the government-owned National Motor Factory.

Monsanto Chemical Co. is building a factory at Bahia to process theobromine from cocoa beans (BW—Apr. 24 '43, p. 74). Monsanto formerly bought cocoa residues from plants in Europe which processed the cocoa bean for its oil content.

● **U. S. Competition?**—The caustic soda plant, which is soon to be built in Brazil with equipment on which the United States has granted special processing and export priorities, will be pushed by local capitalists, though one of the biggest chemical producers in

the United States has shown an interest in the market and is believed to have banking interests in São Paulo in planning the purchase of a number of small local chemical companies which may branch, through them, into caustic soda business.

Pepsi-Cola, which entered the Brazilian market with a small new bottling plant, recently transferred from the United States, apparently is considering a similar venture in Brazil where it can compete with the already-established Coca-Cola distribution setup.

● **Glassplant Proposed**—Though others have already been placed in the United States by two or three Brazilian glassware manufacturers for flat glass rolling equipment, Libbey-Owens-Ford, according to rumors here, may ultimately enter the market with a large new plant.

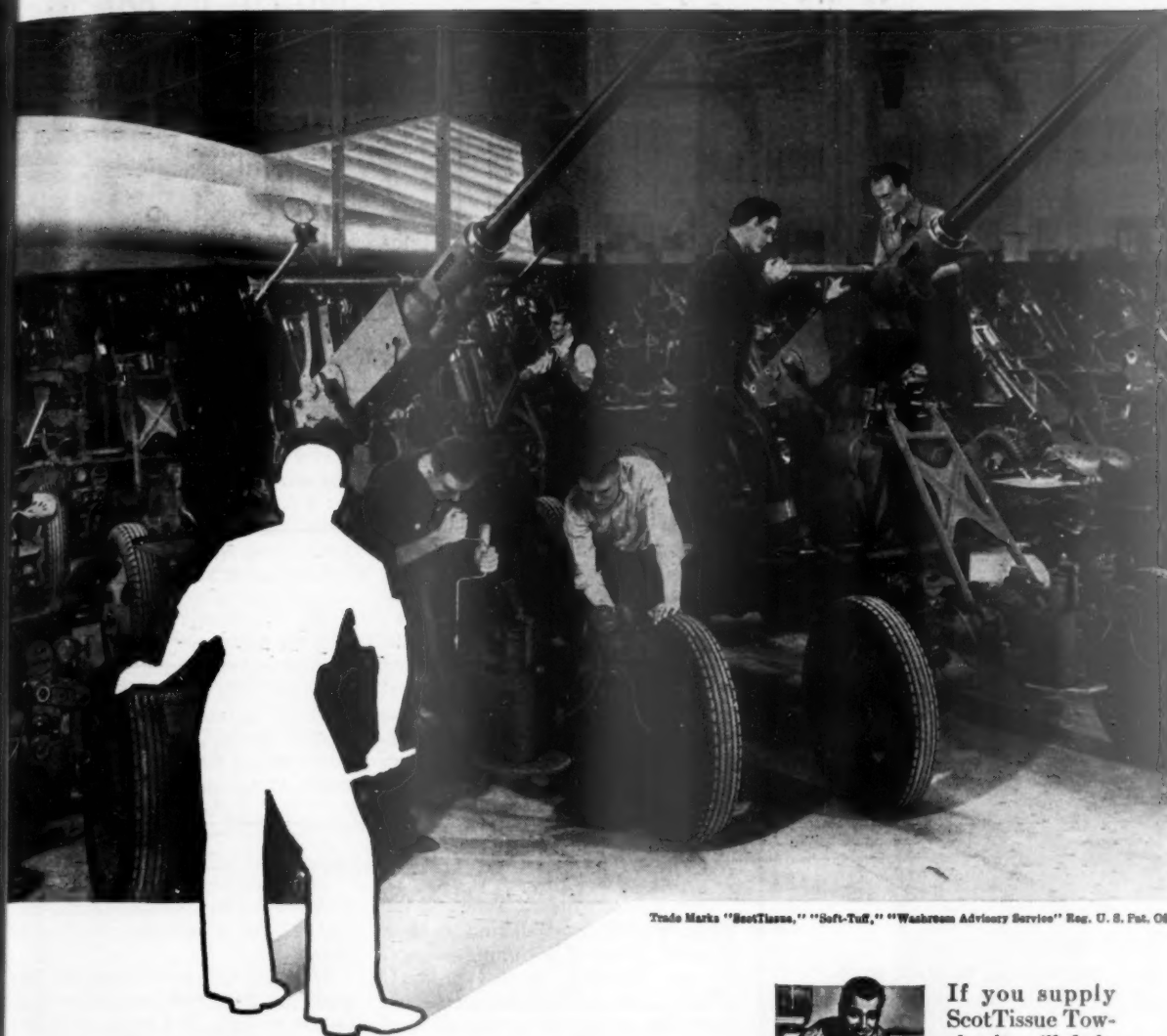
Some of the biggest mining interests in the United States have been exploring nickel, chrome, copper, lead, and zinc deposits in Brazil, but until present restrictions on foreign capital participation in mineral development are eased, they are likely to make no move to exploit these resources on a commercial scale. The nickel and chrome mines of Goyaz state (previously worked on a small scale by joint Japanese-German interests) are particularly under scrutiny.

● **Reynolds Interested**—Representatives of the Reynolds Metal Co. have explored the bauxite deposits near São Paulo and the plant facilities already installed (except for special machinery) by local interests and may collaborate in the production of aluminum (BW—Apr. 3 '43, p. 98).

Most serious drawbacks to the entry of big and progressive foreign interests are the strongly nationalistic attitudes of the government toward many mining and heavy industry projects, the stringent labor laws, the question of an adequate labor supply, and the problem of transferring profits.

● **National Oil Development**—Brazil's attitude toward the exploitation of its oil resources was bluntly demonstrated when foreign concessions to develop oil were bought up, under pressure. Development now is completely in the hands of the National Petroleum Council which is allotted a certain sum each year under the special budget for public works and national defense.

Since 1939, oil drilling and production have been under the direct supervision of the council, with about 15 Brazilian firms engaged in the business under government supervision and several government projects under way with United States engineers in charge. Still, no commercially important wells



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have been found, and there is little prospect that the country will ever cover more than a small portion of its needs from domestic output.

• **Government Also in Coal**—Coal mining is completely under government control with a national law requiring 20% admixture of the Brazilian product with all imported coal rigidly enforced.

Typical of government participation in other mining projects is the Companhia Brasileira de Cobre, a copper mining company in the southernmost province of Rio Grande do Sul. The federal government, in a determined effort to produce a domestic supply of copper, controls one-third of the shares in the company and has steadily pushed modernization of the mines and ore reduction plant.

The Ministry of War operates its own sulphuric acid works, and the São Paulo state government operates two of the country's three lead plants.

Despite these restrictions and the rigid immigration laws which shut out desirable artisans who may wish to move to South America after the war, Brazil—like many other Latin-American countries—is bidding high for technicians from the United States and making attractive offers, with suitable guarantees, for financial and managerial participation in hundreds of new industries.

Made to Measure

Peruvian discovery of magnesium deposits may provide another power outlet for new hydroelectric development

LIMA, PERU—The discovery, only a few weeks ago, of extensive magnesium rock deposits in the river valley above Trujillo and Chimbote (map) north of Lima is expected to tie in with the big new hydroelectric power development now being constructed in the Canyon del Pato by the Peruvian government with funds made available by the Export-Import Bank.

• **Heavily Mineralized**—The extent of the magnesium rock discoveries is as far unknown, as only superficial surveys have been completed, but geologists reported long ago that all of this region is heavily mineralized. Included in the natural wealth are vast coal deposits now being developed for the export trade and for the projected establishment of an iron and steel industry on Chimbote Bay (BW—Sep. 26 '42, p. 96).

Work on the Canyon del Pato hydroelectric project, located on the Santa River which flows into the Pacific just north of Chimbote Bay, was initiated

Achievements in Chemicals

As a result of the blockade and the domestic shortage of all kinds of basic supplies, Brazil is beginning to manufacture hundreds of new products locally. Some of these businesses are operating on such a small scale, and so uneconomically, they will almost certainly not survive in postwar competition. Others, by their own initiative or through the protection of the

government, will become a permanent part of the production machine in Brazil.

How far this mushroom development has gone can best be measured by the progress of a single industry—chemicals. This aggressive industry now produces—in many cases only since the wartime loss of imported supplies—the following products:

Albumen	Crystallized menthol	Nerve Glue
Aluminum-potassium sulphate	Emetine	Nitrate benzol
Aluminum sulphate	Ester gum	Orange oil
Amphetamine camphor sulphonate	Ethyl acetate	Peppermint
Amyl acetate	Ethyl iodide	Potassium bichromate
Amyl alcohol	Ethyl ester of cottonseed	Potassium carbonate
Aniline oil	Eucalyptus oil	Potassium glycerophosphate
Arsenic	Glycerin	Potassium sodium tartrate
Barium carbonate	Glycerophosphate of magnesium	Potassium sulphate
Barium nitrate	Gold-sodium thiosulphate	Putty
Barium sulfuret	Hemoglobin	Shellac (not a good product)
Barium sulphate	Iodine and iodides	Silver nitrate
Benzidine sulphate	Iron protoxalate	Sodium bicarbonate
Bismuth	Isopropyl alcohol	Sodium bisulfite (in powder)
Bismuth nitrate neutral	Lactic acid	Sodium cacodylate
Borax	Lactose	Sodium camphor sulphonate
Boric acid	Lead nitrate	Sodium formate
Butyl acetate	Magnesium carbonate	Sodium glycerophosphate
Butyl alcohol	Magnesium chlorate	Sodium methyl arsenate
Caffeine	Manganese sulphate	Sodium sulfuret
Calcium carbonate	Mercuric cyanide	Sparteine camphor sulphonate
Calcium glycerophosphate (liquid 50%)	Mercuric iodide	Synthetic essence of Nissoul
Calcium lactophosphate	Mercuric oxide (red)	Synthetic resins
Caustic potash	Mercuric oxide (yellow)	Tetraiodophenolphthalein sodium salt
Chrome alumen	Methyl iodide	Theobromine
Citric acid	Naphthalene	Tung oil
Corrosive sublimate (mercuric chloride)		Turpentine
Cream of tartar		Vitamin K

last year under the direction of Barton Jones, an American hydroelectric engineer who for the previous nine years had been associated with the Tennessee Valley Authority.

• **Five Units**—The project provides for the installation of five generating units of 25,000 kw. each. Cost of the installation of the first two units was estimated at \$4,000,000 (prior to Pearl Harbor); the third and fourth would cost an additional \$1,875,000.

Cost of producing power in the Canyon del Pato with the installation of two units (50,000 kw.) is estimated at slightly more than 0.001¢ (U. S. currency) per kilowatt-hour. With four units, this would be reduced to 0.00077¢ per kilowatt-hour, if total capacity is utilized. The construction schedule now calls for the completion of the

POWER FOR PERU



Two important hydroelectric power projects are under construction in Peru. One—Autisha dam to augment the electric power supply for Lima—is being built a short distance above the capital in the Andes and, with a new power plant, will raise electric power generating capacity to 91,000 hp. The other—in Canyon del Pato, west of Chimbote—will provide electric power for the new steel industry to be built at Chimbote, and for developing new magnesium reserves recently discovered in river valleys west of both Trujillo and Chimbote.

KEEP 'EM FIRING—BUY WAR BONDS

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F-SERIES
10" LATHES

"MATCH THE MACHINE TO THE JOB"

There's a new idea in the industrial world that's making production history. Just as a wily commander marshals his artillery to make every gun do its utmost, more and more American industrial generals "match the machine to the job" to step up fire power on the home production front.

They're using big machines for big jobs only—rushing in modern, fast precision tools for small parts production so capacities of larger machines will not be wasted. The Atlas F-Series 10" backgeared screw-cutting lathe is one of these compact new precision tools. Ready today to increase production and lower cost in any plant!

"Match the machine to the job" will be winning profits long after it has helped win the war. As part of your current and post-war planning get acquainted with the compact Atlas precision tools now. Write for the name of our nearest distributor.



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Atlas 4 TOOL TEAM for Small-Parts Machining

① LATHES ② MILLING MACHINES ③ SHAPERS ④ DRILL PRESSES

POST-WAR HOUSING

"HOMES DEPARTMENT? THIRD FLOOR, MADAM"

More than probable in the post-war distribution of homes—department and furniture stores will handle the selling.

Currently, Homasote Company is exhibiting scale models of Homasote Precision-Built Homes in leading department stores throughout the country. Hundreds of people come to these exhibits—join Homasote's Own-Your-Own-Home Club—pledging themselves to start saving the down payment *now*, for a new home after war-time restrictions are lifted.

Department stores—with their concentration of traffic—are a natural outlet for houses. But the product must have established value—the standards of construction must be consistent... And that means engineered housing.



Engineered housing

—as developed in Homasote Precision-Built Construction—produces stronger, more efficient homes for less money.

Homasote decentralizes prefabrication, result of seven years' research at a cost of \$300,000... Notice "decentralized"—Homasote reduces transportation costs by locating fabricating plants throughout the country. Thus it works with established local factors in building... Homasote Precision-Built Construction builds homes of any size, any style, anywhere.



Proved in \$6,000,000 of pre-war, architect-designed private homes and \$30,000,000 of government war housing, Homasote Precision-Built Construction is the key to vast, post-emergency markets—low-cost housing, employee housing, realty developments in all price classes... For more details, write HOMASOTE COMPANY, Trenton, N. J.

HOMASOTE
Precision-Built
HOMES



BURMA'S NEW ROAD

Although offensives to blast the Japanese out of Burma probably cannot begin soon, a new road across India's frontier already carries food and munitions (above) for the push. Trucks and

jeeps battle back-breaking obstacles (below) to supply secret bases along the highway driven through jungles and across mountains. The road, a tribute to British-American skill and equipment, was built in less than six months by Army engineers.



initial installation by the end of 1945.
• **Power Potential**—Engineers estimate that the total power potentiality of the Santa River exceeds 500,000 kw. If the new magnesium rock discoveries prove to be as valuable as expected, the extraction of magnesium and other metals that may be found in commercial quantities will create an immediate market for surplus power.

AIDING RUBBER DRIVE

Principal allies of Rubber Reserve Co. in the hectic search for new natural rubber are American businesses already operating in the potential rubber areas.

William Wrigley, Jr., Co., with a notable achievement in rubber-gathering

behind it and an expanded program ahead of it, claims top rank among these cooperating businesses, although Goodyear Tire & Rubber Co. collects a large amount of rubber in Costa Rica.

During the last five months of 1942, Wrigley brought back 620 tons of rubber and in 1943 expects to deliver 2,500 tons. Tapped from Central American trees, the rubber is Castilla, similar to Hevea, the Far Eastern (and Brazilian) type, but not as highly regarded.

Rubber collection is one of the Wrigley company's war contributions and, according to the management, is more patriotic than remunerative.

Rubber Reserve Co., a Reconstruction Finance Corp. subsidiary, flies much of the rubber to the U. S.



STAINLESS STEEL

STAINLESS steel is playing an important role in Allied war production. Our aircraft, warships and motorized units utilize this strategic material. Production of chemicals, explosives and synthetic rubber is facilitated by use of stainless steel equipment. In many other fields, where high tensile strength and resistance to heat or corrosion are demanded, stainless steel is specified.

As America's largest and only exclusive producer of stainless steel, Rustless is filling a substantial portion of these wartime needs. Rustless is doing more. Through use of its unique process, Rustless is conserving America's limited resources of chromium and electrolytic nickel. This is important, because the stainless steel industry is the largest consumer of low-carbon ferrochrome and electrolytic nickel, both of which are among the most critical of strategic materials.

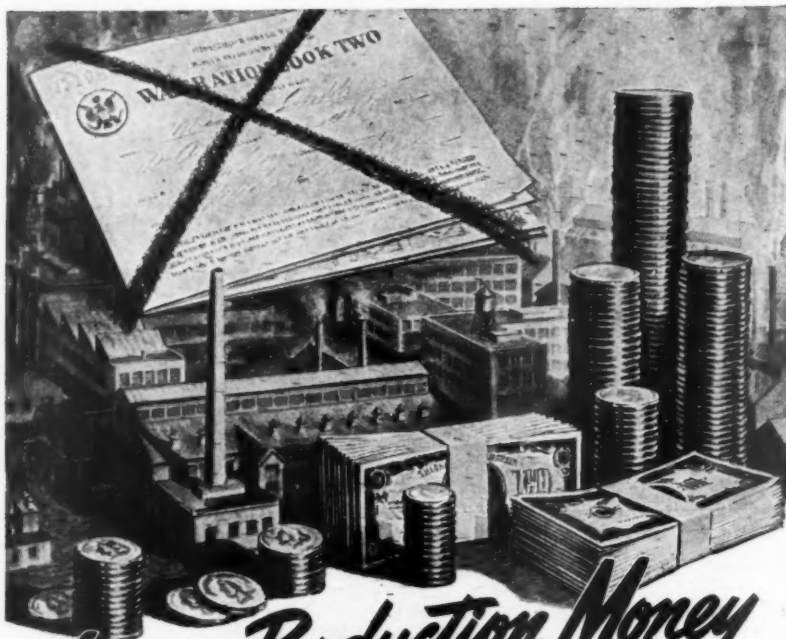
The Rustless Process is based on the use of sub-grade chrome ore and stainless steel scrap, of which there are adequate supplies in this country. More than 65% of the nickel used by Rustless is obtained from scrap, while only 3% of its chromium comes from low-carbon ferrochrome. Thus Rustless is not only meeting wartime demands, but through its conservation efforts is also assisting greatly in meeting the critical supply problem of these two metals.

These advantages of the Rustless Process will be of equal benefit in meeting a greatly expanded use of stainless steel after the war. When that time comes, Rustless will be ready with a fund of new technical knowledge and specialized experience to devote to the problems of peace.

RUSTLESS IRON AND STEEL CORPORATION, BALTIMORE, MD.

R U S T L E S S
CORROSION AND HEAT-RESISTING
STAINLESS STEELS





Victory Production Money — Not Rationed!

Money is the "sinews of war." It is one of the unrationed necessities for concerns engaged in producing military equipment and supplies.

We put no ceiling on the amount of capital we can make available for commercial financing, if it can help victory production.

There are probably many concerns that could qualify for government contracts . . . but they haven't sufficient financing to guarantee fulfillment.

There are probably many companies which could increase production on current orders . . . if they had more working capital to meet larger pay rolls, buy more raw materials or add to plant equipment.

In many ways, Commercial Credit financing can help companies which are producing for military and essential civilian needs . . . don't let any routine limitations imposed by your present financing connections retard your effort.

If you have the manufacturing and sales potentials, we can engineer a plan of financing and supply the funds you need on terms that will enable you to utilize them profitably.

In confidence, and without any obligation, we will analyze your problems and work out a practical solution. Just give us the opportunity to prove it.

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Interesting color charts of ARMY, NAVY and MARINE insignia free on request.

CANADA

Threat to Prices

With fewer goods to buy and money bulging their pockets, Canadians will provide a critical test for the anti-inflation line.

OTTAWA—Pressure of an additional \$400,000,000 or more of spending money in the pockets of Canadians this year over last, against a consumer goods supply that is smaller by almost \$400,000,000 than in 1942, threatens to break Canada's price ceiling structure. In the face of this extra pressure, survival of the Dominion's price control policy depends on control of farm prices and wages. It is the same problem that Washington is trying to solve, but Canada's efforts to stem the inflation tide have been so much more successful to date that each new move now is watched with particular interest.

• **Creeping Up**—Here is the picture of the rising income threat against the Dominion's anti-inflation defenses:

In 1939, individual Canadians had an income of \$4,300,000,000, spent \$150,000,000 for taxes, and so had a disposable balance of \$4,150,000,000, of which they spent \$3,500,000,000 on goods and services. This left \$650,000,000.

In 1942, they had an income of \$6,850,000,000, put \$600,000,000 into taxes, and so had a disposable balance of \$6,250,000,000, of which \$4,450,000,000 went for goods and services. This left \$1,800,000,000 to be absorbed in other ways.

In 1943, their total income will soar to nearly \$7,600,000,000 and their taxes to \$950,000,000, leaving an expendable balance of \$6,650,000,000. Since not more than \$4,100,000,000 of goods and services is likely to be available, the inflation gap is dangerously widened, and no plan has yet been devised to cope with it.

• **Alarmed by Wage Increases**—The price control administration, paying producer and retailer subsidies to hold down the cost-of-living index and prevent periodic upping of the cost-of-living wage bonus (BW—Jul. 19'41, p14), is alarmed by recent grants of wage increases by war labor boards on applications for adjustments. Between the establishment of wage ceilings in 1941 and the end of February, 1943, the labor boards dealt with 21,451 wage or bonus applications affecting 1,567,063 workers and granted 89% of them for an increase in payroll disbursements of \$79,237,000 a year. This increase does not include upping of wages through

RAILROADING CROSSES A NEW FRONTIER

Today on the Great Northern, GM Diesel Locomotives like this are hauling heavy war loads through "The Great West." On one mountain operation, consisting chiefly of movement of metal vital to victory, the utilization of GM freight locomotives resulted in an increase of 50% in train-hauling capacity.



Here Currier and Ives, the famous portrayers of American life of the past century, depict one of the great eras of railroading—the achievement of rail transportation from East to West—the opening up of new lands and unexploited resources.

WARS have a way of ending old eras and starting new ones. Following the Peace of 1865, the nation was first united from coast to coast by bands of steel (May 10, 1869). Geographically, America has no new frontiers. Technically we have many. The curtain already has been drawn back on one element of the new era that surely will follow the present conflict—a new tool for the improvement of national transportation—General Motors locomotives.



Crossing the new frontier is not alone for the railroads. GM Diesels will usher in new possibilities for the farm and for industry as well.



LOCOMOTIVES.....ELECTRO-MOTIVE DIVISION, La Grange, Ill.

ENGINES...150 to 2000 H.P....CLEVELAND DIESEL ENGINE DIVISION, Cleveland, Ohio

ENGINES...15 to 250 H.P.....DETROIT DIESEL ENGINE DIVISION, Detroit, Mich.



"THAT'S THE STUFF

that will win the War—

These are the materials that are accorded preferential movement. Until the War is won they must have right of way."

While this is being done the Seaboard may not in every instance be able to maintain the same standard of service on commercial traffic as in normal times. Therefore, if your shipment should be late, we rely on your indulgence and continued cooperation. Seaboard maintains Service Agents in many strategic cities to assist in your transportation problems. We invite you to enlist their aid.

KEEP ON BUYING WAR BONDS AND STAMPS

Remember, there's no let-up, no time-out, for our fighting men.

SEABOARD RAILWAY



promotions and upgrading or last year's automatic increases in the cost-of-living bonus which gave employees an extra \$80,000,000.

An anchor for the anti-inflation fight at the wage end may be found in the probe into labor relations now being conducted by the National War Labor Board, but control of farm prices is expected to be less severe under a change of authority from Donald Gordon's present administration to Minister of Agriculture J. C. Gardiner.

• **Compulsory Bargaining Fought**—The NWLB's labor relations probe is bringing protests from large industrial employers about labor demand for a wartime compulsory bargaining law. Consolidated Mining & Smelting Corp. and other companies have strongly denounced a proposal that independent unions be excluded from recognition by bargaining agencies. NWLB's findings are expected to include a plan for compulsory bargaining in war industries which does not shut out plant and other independent unions.

• **Food Bank Favored**—The Ottawa government had no part in framing the British plan now before the Hot Springs conference for an international food bank (page 22), but the project has plenty of appeal for Canada as one of the leading food producing nations. Ottawa officials and Canadian agricultural interests are particularly attracted to the part of the program that aims at absorbing surplus supplies from years of high production into an international reserve against years of short supply and thereby promoting price stability.

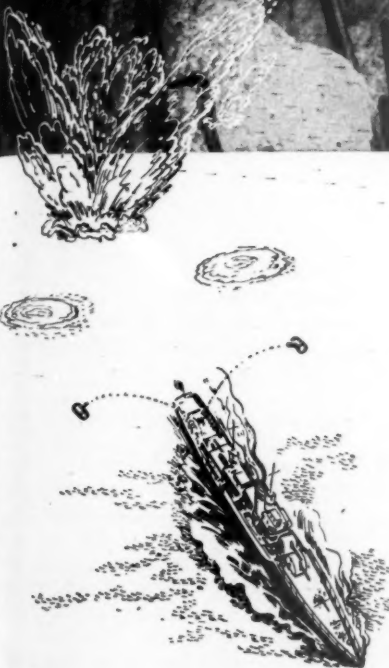
As seen here, the British proposal appears to make a major contribution to a long-term solution of the postwar economic problem of Canada's three western wheat-growing provinces, and one which—if established soon—would be an aid to the anti-inflation program which is bound to continue until some months after the war. But it is recognized that no such plan could succeed independently of other international arrangements for general betterment of world economic and commercial conditions. Also, Canadians are withholding final judgment on the British plan until U. S. reaction is indicated, Canada's interests as a producer nation being largely parallel to those of its big neighbor.

STEMMING LABOR FLOW

Washington and Ottawa have just reached an agreement to remove the friction caused by the high wages paid on U. S. government projects in Canada.

For more than a year, employers have been losing laborers, mechanical workers, clerks, and stenographers who have turned in a steady stream to the better paying jobs offered by United States Army contractors on the Alcan highway and other war projects. Recent bans on

"Laying a depth charge" for **AXIS SUBS!**



IN mines thousands of miles removed from the battle of the Atlantic, Cleveland Rock Drills are contributing to the relentless warfare against enemy submarines. Here, for example, a Cleveland Drifter is drilling holes for dynamite charges that facilitate removal of war-vital metals. Such metal is used in destroyers, "ash cans," shells, patrol planes, and many other weapons of sub warfare.

This is but one of many examples of Cleveland Rock Drill's behind-the-lines service in winning the war. And when the weapons of war are again replaced by the products of peace, Cleveland equipment will continue to serve by helping mine the metals so necessary to industrial progress.

If you have a rock drilling problem, either in mining or construction work, a Cleveland engineer will be glad to help you solve it.

BUY U. S. WAR BONDS AND STAMPS

CLEVELAND ROCK DRILL EQUIPMENT

includes:

Sinkers, drifters, stopers, jumbo drill rigs, paving breakers, clay diggers, tampers, wagon drills.

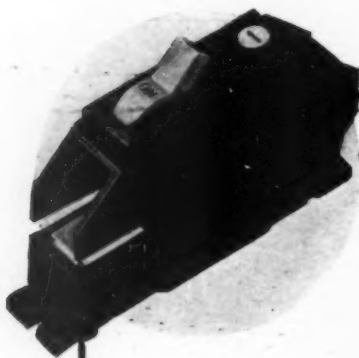
Also a complete line of accessories

THE CLEVELAND ROCK DRILL CO.

Subsidiary of The Cleveland Pneumatic Tool Co.

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**Combines time-delay
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thermal trip with the
fast/magnetic trip**



the Improved TYPE AC
THERMAG
CIRCUIT BREAKER

for electric light and appliance branch circuits, prevents unnecessary interruptions in service—but provides full protection against short circuits or dangerous overloads. On harmless momentary overload, the thermal element prevents interruption of service, but trips on sustained, dangerous overload. On short circuit the magnetic element causes faster tripping.

The improved Thermag Circuit Breakers are now furnished in all standard and narrow column type panelboards, and in all dust-tight panelboards, at no additional cost . . . Capacities: 50 amperes or less, 120 volts AC, single or double pole, individual trip.

Sturdy construction renders Thermag Circuit Breakers ideal for industrial use.



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EDITION**
of this well-known guide
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Today every executive is alert to the necessity of better techniques in dealing with others for the furtherance of the common objective. Here is a new special edition of this sound and stimulating manual for every man who wants to improve his methods of getting along with others

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with problems of:

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By **ERWIN H. SCHELL**, Professor of Business Management,
Massachusetts Institute of Technology

Price, only \$2.00

SHOWS that executive technique is not a mysterious sixth sense, but a quality that can be definitely developed by anyone who will follow the simple methods laid down in this manual. Defines the tools of executive control; outlines the factors involved in the successful handling of others; gives practical and usable methods for getting a maximum output of work with a minimum amount of friction. In this edition a new chapter discussing the influence of the current emergency upon the various techniques of executive control has been added.

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the transfer of more Dominion workers to these jobs have been protested by labor organizations, and the whole problem was beginning to affect Dominion U. S. relations.

The solution now seems in sight with the appointment by the Labor Minister of a special Western War Labor Board whose operations will cover the provinces of British Columbia and Alberta. The board, to which Washington is invited to appoint a consulting representative, will have authority to fix pay scales for all Canadians hired by United States contractors. Presumably they will be in line with prevailing wage rates in the western provinces.

NO BARGAINING BY FORCE

Canada's National War Labor Board has served notice on labor unions that claims to recognition as bargaining agents, if based on success of strike action or other coercive moves, will not be recognized.

Recently, the board refused to hear a pay adjustment application for Montreal 'Tramways' employees presented by the Canadian Brotherhood of Railway Employees which claimed bargaining rights as the result of the recent tie-up of transportation in Montreal. NWLB brushoff of the brotherhood nullified Labor Dept. recognition of the union as the bargaining agency and forced Labor Minister Humphrey Mitchell to arrange for a vote of Tramway workers to determine representation.

Subsequently, eight war plants at Galt, Ont., had operations curtailed by a United Steelworkers' (C.I.O.) strike called for the purpose of asserting the union's claim to recognition as bargaining agent. According to company estimates, not more than 50% of the workers in any of the Galt plants walked out, however.

SELLING CANADA

Washington is pleased and London is worried over the Wartime Information Board office that Canada has just opened in New York and on which nearly \$100,000 has already been spent.

Determined to make Americans more familiar with Canada and with the size and importance of the Dominion's war effort, a little group of progressives in Ottawa finally succeeded in selling the government the idea of propagandizing their country south of the border in the style familiar to Americans. New York got the first information office because it is the publishing, advertising, and radio center of the United States.

Success to date suggests that other offices may be opened across the country. London is worried because the ties may last long after the war and cut the traditional volume of lucrative British-Canadian trade.

LABOR

DeShetler Is Back

C. I. O. organizer reopens membership drive to win A. F. L. boilermakers at Kaiser yards in Portland after dispute.

Apparently the internal differences that threatened to disrupt completely C. I. O. efforts to sign up members in the Henry J. Kaiser shipyards at Portland, Ore., now a stronghold of the powerful A. F. L. Boilermakers Union, have been smoothed out, and the campaign will be resumed.

Truce Effected?—Last week, Irwin DeShetler, assigned by the C. I. O. early last month to run the campaign, returned from Washington, D. C., where he had gone to demand a showdown on who is to be the boss of the Portland plant. When he left for Washington, it was generally understood that unless he was given complete charge he wouldn't return to Portland (BW—May 24, p. 94).

Clash between the national C. I. O. and the C. I. O. Marine & Shipbuilding Union of America caused the mixup, most Portland observers believe. DeShetler found his authority divided between himself and Ruth Meyers who for many months had maintained an office there for John Green, C. I. O. shipbuilding union president.

Financial Appeal Again—Both are still in the job, but DeShetler has let it be known that he really is the boss he claims he originally was supposed to be. Small, one-column ads are appearing again in Portland newspapers calling attention to the fact that the C. I. O. union charges no initiation fees and monthly dues are \$1.25 in contrast to the A. F. L. boilermakers' \$25 initiation fee and dues of \$3.50 monthly.

Green himself showed up in Portland last week. Purpose of his visit, he said, was "to look things over and check up on preparations for a membership drive."

Mass Meeting Flops—DeShetler, Ruth Meyers, and other local C. I. O. officials were interested spectators at the mass meeting held last week by the dissident faction within the Portland A. F. L. local which is trying to oust Tommy Ray, secretary and business agent, from control of the 60,000-member local (BW—Feb. 13 '43, p. 78).

The mass meeting proved a dud, drawing an audience of 500 when at least 3,000 were expected.

Minority's Charges—Presenting their case to what they called "the jury of public opinion," officers who say they represent the rank and file and claim



Speedi-Dri, even when soaked in oil, will not burst into flame. Unlike sawdust, Speedi-Dri is an effective fire-retardant. Blanket the oily floors around your machines with Speedi-Dri and you need never fear the dangers of a flash fire.

But Speedi-Dri does more than control the fire hazard. It provides a non-slip surface, helping to prevent many a falling-accident. Its absorption quality is so great that it will actually draw old oil stains from wood, concrete, or steel floors. It can be spread by hand and easily swept up with a broom. Speedi-Dri costs less per square foot of floor coverage than any other effective method or product.

When you figure the money you save on insurance, cleaning equipment, and labor; the production time you save by reducing accidents; the lift to employee morale that comes from a cleaner, safer shop, Speedi-Dri almost pays for itself!

You'll never believe what this product can do, till you see it with your own eyes. Write for a generous Free Sample. There is only one Speedi-Dri. (If you use water-soluble oils, or if water is also present, ask for Sol-Speedi-Dri.)



SUPPLIERS

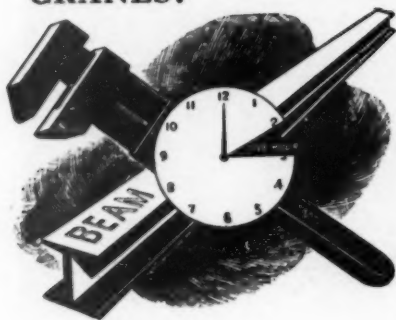
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WAVERLY PETROLEUM PRODUCTS CO.
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Prompt Service from Warehouse Stocks in Leading Cities

CRANES?



Build your own!

YOU can acquire either a jib or a bridge crane by building it yourself—and in an hour's time.

You need only a wrench, an I-beam and a 'Budgit' Crane Assembly for a jib crane. (For a bridge crane you will also need a shaft.) There are no holes to drill—nor is there machine work of any kind.

It does not take a skilled mechanic to build a crane by this new and revolutionary method. Any intelligent workman can do the job.

This is such a sensible, practical idea that we have shipped hundreds of Crane Assemblies to war industries where they are helping to increase production.

You need not wait weeks for a Crane Assembly. On the right priority, we can make quick deliveries and your new crane can be operating the day you receive the Assembly. Transportation costs are low as you buy the heavy beam or shaft from the nearest source.

Simple but complete instructions are included with every Crane Assembly.

Write for Bulletin 355 which contains full information of this quick, economical way to acquire jib or bridge cranes.



'BUDGIT' Crane Assemblies

MANNING, MAXWELL & MOORE, INC.
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Builders of 'Show-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

they are the duly elected officials of the boilermakers' local charged they have been prevented from taking office and denied use of the union's \$225,000 "marble palace" headquarters. They claim they have received no financial statement or audits of the local's books, that the national organization has held no convention in six years, and that the present officers of the local are serving illegally.

Most speakers attacked Tommy Ray, charging he built the "marble palace" without authorization and that he has transferred \$260,000 in war bonds to international headquarters.

Incidentally, just where the rank-and-filers got the \$1,700 they spent to advertise the meeting and rent the auditorium is a matter for considerable speculation in Portland.

• **Hearings to End Soon**—All these A.F.L. and C.I.O. activities took place last week as the National Labor Relations Board's Portland hearing on charges of unfair labor practices against the Kaiser companies apparently were drawing to a close. The hearing opened in January (BW—Jan.16'43,p80). Sole question for the board to decide is whether a collective bargaining unit, within the meaning of the Wagner Act, existed in the Kaiser yards when closed shop contracts were signed between the A.F.L. boilermakers and the Kaiser management.

Should the contracts be ruled invalid by the board and an election ordered, most Portland observers are now inclined to believe a "no-union" vote would win.

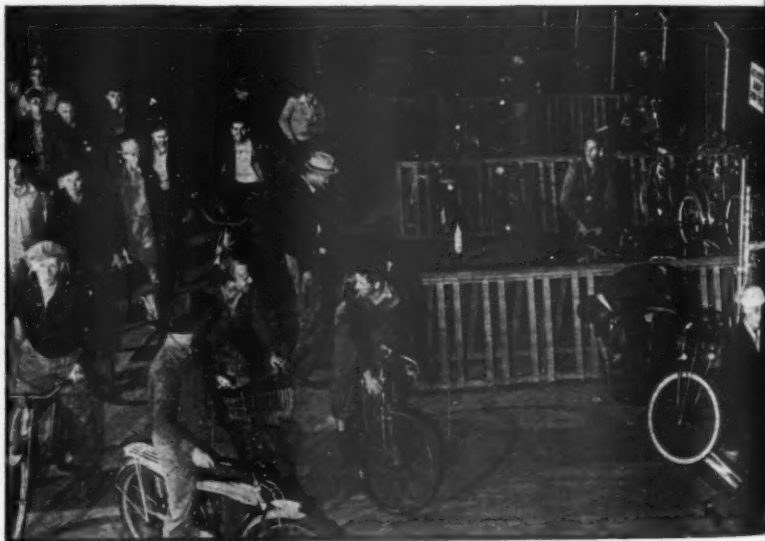
Driving a Bargain

Machinists' move to leave A. F. L. seen as attempt to bolster their position in jurisdictional row with carpenters.

The International Assn. of Machinists, A.F.L. affiliate with a claimed membership of 600,000 centering in the metal trades, in shipbuilding, and in aircraft firms like Boeing and Lockheed has left the American Federation of Labor.

• **Jurisdictional Fight** — I.A.M. and A.F.L.'s carpenters union have been engaged in a 30-year fight over jurisdiction and for the last five years, every time the issue came up before the federation executive council, the machinists have lost the decision. It's a fight over whom members shall have the right to install and dismantle machinery in factories. Harvey Brown, I.A.M.'s scrappy president has taken his organization out of A.F.L. as a bargaining move to induce the federation to change its mind.

Although the C.I.O. would welcome the machinists with open arms—particularly as an offset to the Lewis move back into the A.F.L. (BW—May29'43,p17)—they would not be comfortable in the rival group. In a number of important industrial areas, their jurisdiction overlaps C.I.O.'s auto workers, steel workers, shipbuilding workers, and electrical, radio, and machine workers. Likewise, as the coal miners found out,



BIKE PARK

Bicycles help to cut absenteeism and tardiness in a number of war plant areas by taking some of the heat off overburdened transportation. At Burbank, Calif., Lockheed Aircraft con-

siders two-wheelers important enough to sell them to workers living within four miles of the plant. Under Lockheed's plan, 2,000 employees have bought bikes for daily transportation. The company provides a bicycle parking lot (above) for its pedalers.



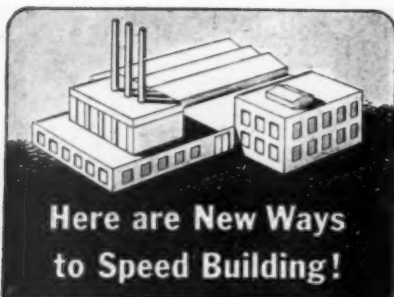
MH Electronics / IN THE AIR !

WHEN ice forms on the wings of a bomber, an M-H Electronic instrument automatically sets in motion the de-icers on its wings. Likewise, in the operation of the plane and its fighting mechanisms, M-H Electronics perform important operating functions. The same accuracy and dependability now so vital in instruments of war, will be applied by Minneapolis-Honeywell through Electronics, as soon

as the war is over, to Controls for effortless peacetime living as well as to M-H/Brown Instruments for the control of Industrial Production. This is a promise that will be realized in American homes and American industry. Minneapolis-Honeywell Regulator Company, 2728 Fourth Ave. S., Minneapolis, Minnesota. In Canada: Toronto, Ontario. In Europe: London, England, and Stockholm, Sweden.

★ Listen: "JOHN FREEDOM"—
Blue Network Coast to Coast every
Wednesday, 9:00 to 9:30 P.M. Eastern
War Time; or see your newspaper.
"The Most Dramatic Show on the Air"

INSTRUMENTS BY **BROWN** FOR INDUSTRY
MINNEAPOLIS-HONEYWELL
TEMPERATURE CONTROLS



Here are New Ways to Speed Building!

IF YOU are planning construction or alterations for the near future, these new multiple-function Celotex Products can save you time, labor, and critical materials!

CEMESTO combines exterior and interior finish, plus insulation, in a complete fire-resistant wall unit . . . **CELO-SIDING** combines sheathing, insulation, and a mineralized exterior surface.

CELO-ROCK WALL UNITS, composed of laminated layers of gypsum wall board, are made in two styles—one weather-surfaced for exterior use, the other clear white for interiors. Both are strong, rigid, fire-resistant.

Get full details from your Celotex dealer, or write direct to The Celotex Corporation, Chicago.

CELOTEX

ROOFING—INSULATING BOARD
ROCK WOOL—GYPSUM WALLBOARD
LATH—PLASTER—ACOUSTICAL PRODUCTS

independent status has its disadvantages.
• Strong Talk Discounted—Informed labor opinion is therefore assuming that Brown will be back in A.F.L. by next August—when the federation executive council holds its next meeting—conciliated in some fashion so that his return will not cost him face.

"COMP" RATES REDUCED

Employers in Kentucky will be exempt, beginning July 1, from paying workmen's compensation insurance premiums on 75% of employees' overtime wages, as the result of a State Workmen's Compensation Board ruling. Chiefly a wartime order, it will be effective for one year.

The extra pay, the commission figures, in no way reflects an increased hazard to the worker. Eventually, this would result in a lower rate for insurance, but Kentucky industry still would be out money because the lower rate probably would apply to much smaller payrolls—that is, to the payrolls of normal times.

It is estimated that savings amounting to approximately \$100,000 a year would accrue to general industry in Kentucky, with probably as much more to the coal industry, which has a separate rate schedule. An estimated 200,000 workers come under the order.

Drivers Rebe

Organizational drive
Teamsters Union hits snag in
Port Huron; nonunionists hit
back with strike.

Efforts of the A.F.L. Teamsters Union to organize drivers of a dozen dairies at Port Huron, Mich., have brought about one of the most tangled situations the National War Labor Board has yet had to face.

• Patronage Shifted—The organizational drive has resulted in: (1) a protest strike against it, called by nonunion dairy drivers; (2) a public fund to back up the strikers; (3) widespread shifting of commercial business from one dairy to another and often back again; (4) similar shifting on the part of farm suppliers to the dairies; and (5) a crack down by the local OPA office on the use of gas by teamster organizations for purposes of following nonunion trucks.

Of 15 milk companies in Port Huron, three smaller ones are organized. Efforts to extend unionization began early this spring, with approach to the employers rather than the employees. The employers took the position that the Wagner Act forbade them to make any move influencing their employees one way or another.

• Would Deny Deliveries—To counter this stand, the union assigned organizers to follow milk trucks to business establishments, there to tell the business owners that they would be refused deliveries by Teamsters Union members if they continued to buy nonunion milk. At the same time, other union men approached officials of the new Dow Chemical Co. plant at Marysville, Mich., just south of Port Huron, promising counteraction if the cafeteria continued to handle nonunion milk.

Some business places shifted from nonunion to union dairies. This brought down the income of the nonunion drivers, who work on commission. The nonunionists retaliated by calling a city-wide protest strike to foster public sympathy. For a week, milk deliveries to private homes in Port Huron stopped. Citizens, led by the Port Huron newspapers, raised a fund to help the idle drivers.

• Status Quo—At about the same time the trucking commission of the NWLB held a hearing and ordered the status quo maintained. The stores interpreted this to mean that they could handle nonunion milk, and some which had shifted went back to their original dairies. They justified this not only by their interpretation of "status quo" but also on the ground that the small union dairies could not fill their needs. The small supply of milk available through

THEY MUST ARRIVE SAFE

that's why so many airplane engines are shipped in Douglas Fir Plywood boxes!



DOUGLAS FIR PLYWOOD

Real Lumber
**MADE LARGER, LIGHTER
 SPLIT-PROOF
 STRONGER**

SEND FOR FREE
 WAR USE FOLDER

Because Douglas Fir Plywood boxes and crates offer far more protection . . . reduce weight . . . save space . . . and are re-usable over and over again . . . thousands of airplane engines and other vital war equipment are being shipped in them. Keep this in mind. After Victory, let Douglas Fir Plywood help solve your crating problems, too. Douglas Fir Plywood Assn., Tacoma, Wash.

THIS MIRACLE WOOD IS STRONGER PER POUND THAN STEEL!

How many war buildings can a ship carry?

AMERICAN troops are landing overseas almost every week! They must have living quarters, mess halls, hospitals.

And every foot of shipping space is precious.

That's why the new task-force buildings developed by United States Steel are creating such a sensation in military circles.

These steel task-force buildings are so designed that they are carried in a ship's hold in bundled, nested sections. They take up much less space than "knocked-down" buildings of other kinds.

A 20-by-50-foot building, complete with insulation, flooring, windows, doors and foundations, and containing 10,300 cubic feet of living space, can be packed in only 240 cubic feet of shipping space! And it can be erected and ready to use in a few hours!

This is just one new development called forth by the war. From United States Steel laboratories are coming many others: a new, fast way to make bullet-core steel; ideas for speeding up the building of naval vessels; steel runways for landing fields.

After the war . . . they're yours!

The new, better steels born of war will be yours when peace returns. Available for use in your products, whether you make washing machines or automobiles. And the U. S. S. Label on the products will prove to your customers once again that no other material rivals steel in usefulness and economy.

NEW STEELS FOR AMERICA

BUY WAR BONDS EVERY PAYDAY

The money you loan builds America's war strength. Yours again to spend in years to come . . . for new comforts, products of steel, things for better living.



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Versatile Buell Dust Recovery Systems help produce it

Carbon dioxide, the gas that puts the pop in soda, inflates rubber life rafts, and makes dry ice, is also the gas that snuffs out flaming gasoline and oil. At landing fields and on carrier flight decks, asbestos-clad rescue squads stand by with bright red cylinders of CO₂ to fight crash-landing fires. Planes aloft carry CO₂ to snuff engine fires and prevent gas tank fires caused by tracer bullets.

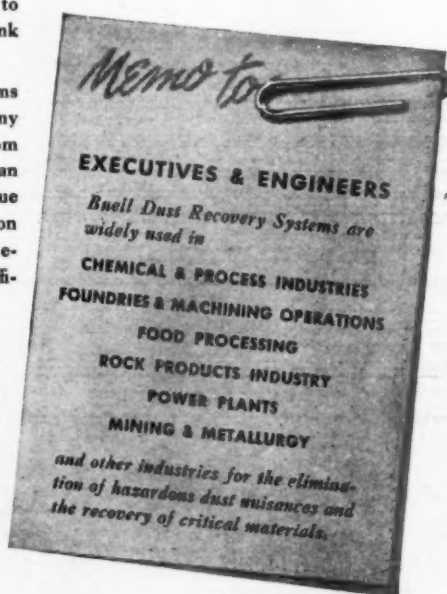
Versatile Buell Dust Recovery Systems help produce this flame-killer—in many plants as a profitable by-product from flue gases. Buell's function is to clean the gases by removing contaminating flue dust prior to the recovery of the carbon dioxide—a job at which Buell Dust Recovery Systems have proved highly efficient and economical.

BUELL ENGINEERING COMPANY, INC.
60 Wall Tower, New York
Sales Representatives in Principal Cities



Factual
28-page book.
Write for
Bulletin G-842.

The patented van Tongeren cyclone, an exclusive feature, gives Buell Dust Recovery Systems their high efficiency. Long life, low operating and maintenance cost, and unlimited capacity are other reasons for Buell's wide acceptance throughout industry.



BUY WAR BONDS AND MAKE THE AXIS BITE THE DUST

WMC APPEALS EASED

Machinery for either employers or employees to use in appealing from the numerous rulings, orders, and directives of the War Manpower Commission has now been established, by Regulation No. 5 which comes out of the office of WMC Chairman Paul V. McNutt. It prescribes who may appeal what and how, as well as outlining procedure which the commission will use in handling such appeals. It also provides that anyone affected by WMC action is to be informed of his appeal rights.

An employer may ask for special treatment when he is required to alter his going practice of hiring or releasing workers, or if WMC maintains that he is violating any commission ruling. An employee may appeal when WMC action keeps him out of a job, limits his right to shift jobs, or results in his being transferred or laid off against his will.

Appeals are to be taken as soon as possible after the action protested, and they must be initiated with area labor-management appeals committees which are being established for that purpose. Unsatisfactory decisions may be appealed up to McNutt himself.

these dairies was, meanwhile, being further reduced by refusal of many dairy farmers to sell to them.

As this shifting continued, the Teamsters Union renewed its organizational efforts, attempting a general labor boycott of stores handling nonunion milk. **Endurance Test**—It looks like a test of endurance in Port Huron—whether the nonunion drivers and their employers will cave in under the pressure of the union, or whether the union will decide the game isn't worth the candle. Only about 50 drivers are involved.

MERGER PROBLEM SOLVED

When the Washington Iron Works in Buffalo bought out the Fillmore Foundry, a strange labor union condition resulted. The A.F.L. International Brotherhood of Firemen & Oilers had a contract in the Washington works employing 60, and the C.I.O. United Steelworkers had just been certified as bargaining agent for Fillmore's 30.

The plants were physically merged. Both the C.I.O. and the A.F.L. could have rested on their legal rights, but both acceded to a National Labor Relations Board election after the employer petitioned for relief. The originally small C.I.O. unit in the end gobbled up the A.F.L. unit, winning the election 53-

Employees Play

Lockheed workers' club finds its activities increased by war; company plans to give cafeteria to organization.

Many's the plant in which employees' social and recreation clubs have proved their value, and Lockheed Aircraft Corp. has one of which it thinks most highly. Lockheed, in fact, is currently giving a substantial indication of its feeling.

Management Support—The company proposes to donate a cafeteria (building materials and equipment alone will run to a \$300,000 outlay) to its Lockheed Employees Recreation Club. To that end, corporation officials were in Washington recently making a strong bid for release of these materials and for the assignment of a priority number high enough to assure the completion of the cafeteria.

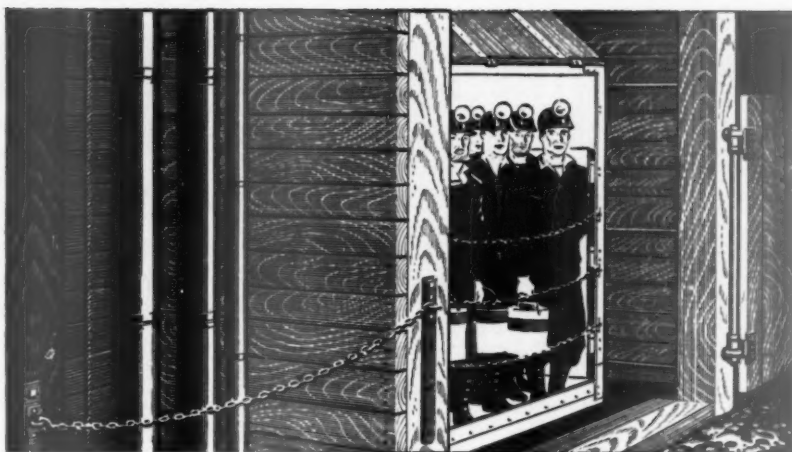
Profits from the proposed venture, like those from the eight canteens now owned and operated by the employees' club, would go to support the morale-building program. Lockheed has found that employees who take part in club sponsored activities "maintain the highest on-the-job regularity records." Hence its keen interest in the whole schedule of activity—recreation of both social and athletic character and a variety of social services.

They Pay No Dues—Every Lockheed worker automatically is a member, eligible for all activities. They pay no dues or assessments, are given a maximum of management cooperation but a minimum of management direction. Employees elected from the various plants, departments, and working shifts form the council which, with the executive committee, directs every function. An executive secretary, a recreation director, and a director of women's activities are retained on a full-time basis.

The club goes back to 1935 when a Lockheed baseball team, passing the bat after a Sunday game, voted to donate the proceeds to a fellow employee who was down on his luck. Quickly club activities grew to include dances, picnics, and week-end parties.

Canteens Successful—Before long, receipts were helping to care for members in need of emergency financial assistance. As the treasury grew, self-help activities were concentrated in a service committee. Next came a monthly magazine owned and operated by the employees, with volunteer salesmen soliciting advertisements. The need for a canteen system shortly was demonstrated to the management, and it has been successful from the very start.

In 1939, the club became a nonprofit



WOOD Installed Years Ago is Helping the War Effort

A MINE SHAFT carries a lot of traffic. Through it travel the manhoist, skips and counterweights, plus piping and conduit, the manway and ventilating shaft. Construction has to be true, sturdy and dependable, in the face of conditions that are unusually severe—a lot of moisture is present, and exhaust air may carry fungus-forming spores.

WOLMANIZED LUMBER* has been widely used for this important construction as shaft timbers, planking and guides, in trestles and head frames, and as ties. The fact that it performs so well, under these adverse conditions, explains why service records on Wolmanized Lumber make such interesting reading.

PROLONGED LIFE of this treated wood greatly reduces the labor required for maintenance. Thus, the millions of feet of Wolmanized Lumber used throughout industry generally, for years past, are now helping to ease the manpower situation. New materials can go into other vital construction, and the money saved can help the war effort.

WOLMANIZED LUMBER is ordinary wood, "alloyed for endurance". Vacuum-pressure impregnation with Wolman Salts* preservative makes it highly resistant to decay and termite attack. In using it, you retain all of the advantages of working with wood—ease of handling and erection, light weight, strength, resilience, high insulating value. American Lumber & Treating Company, 1656 McCormick Building, Chicago, Illinois.

*Registered Trade Mark

"Alloyed" FOR ENDURANCE



WOLMANIZED LUMBER

WHAT THE LABOR BALANCE SHEET SHOWS

Figures Behind the Manpower Problem

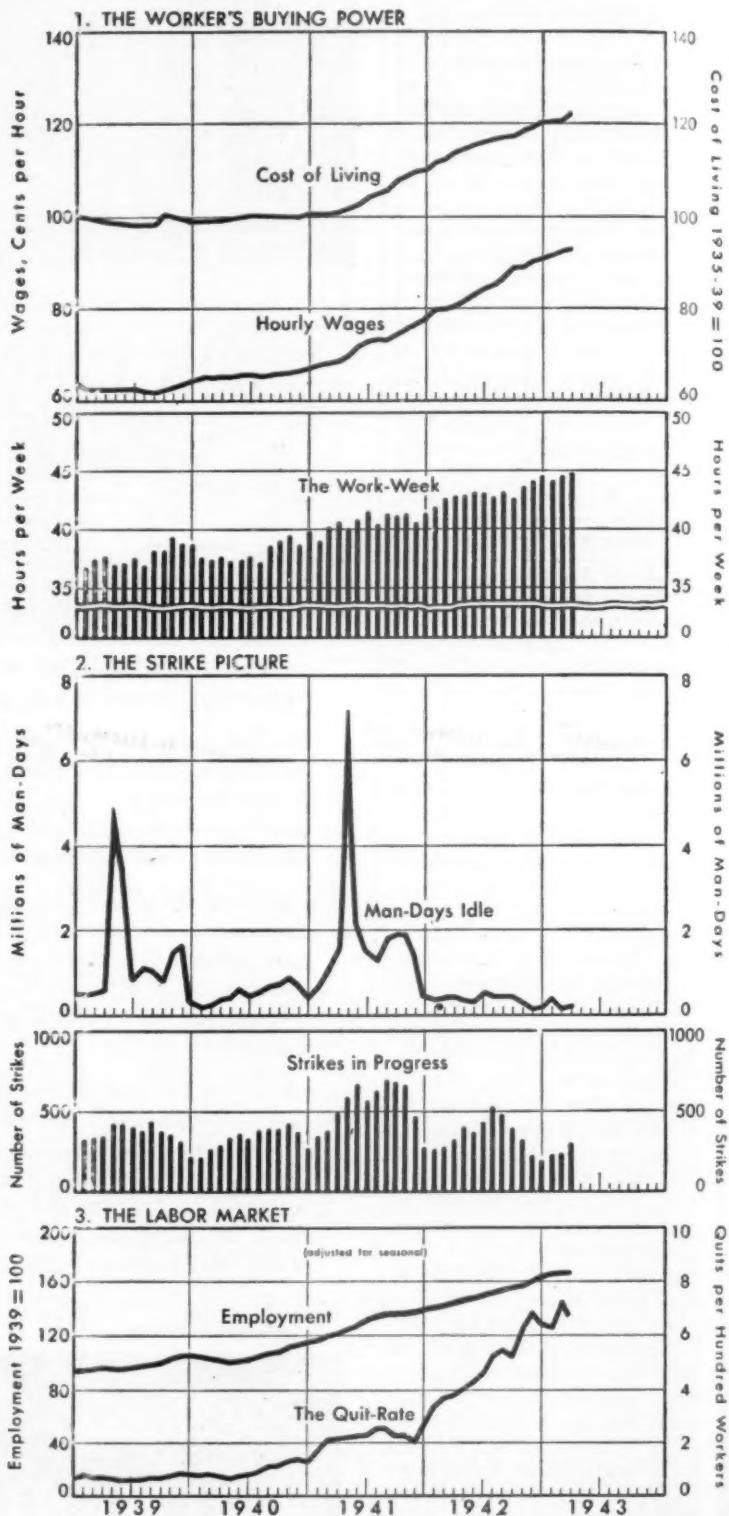
The fact that the cost-of-living line in the top chart is curling upward in a more precipitate rise than at any time since August-September, 1941, is the most significant development reflected in this quarterly presentation of labor statistics. Last quarter's figures (BW-Mar.13'43, p98) suggested that living costs and hourly wages might, as they did in 1942, closely parallel each other this year; but, for the first three months at least, they reveal divergent tendencies. For March, 1943, real hourly wages have declined.

• **The Worker's Buying Power**—At 44.8, average hours worked per week reach a new peak. They assure a larger take-home pay for labor and an absolute increase in real weekly earnings. The work-week will continue to lengthen and may be above 48 by the end of the year. As we reach the end of our reserve of unemployed (BW-May 22'43, p112) and begin to experience difficulties in drawing additional workers into the labor market, it is a longer work-week on which we must depend to provide the increased man-hours necessary to run our production plants.

• **The Strike Picture**—Quarterly figures on man-days of idleness and strikes in progress have fallen behind the facts. What the charts show for the first three months of 1943 should not be construed as a hint of what is to come.

Organized labor's no-strike pledge held well until May, or, perhaps more accurately, it was only then put to the test by being confronted with government policy that opposed many union demands. Next quarter's compilation will show work stoppages at a level surpassed only by the first half of 1941.

• **The Labor Market**—What accretion there has been in the number of employed comes primarily from the entry into factories of women who are not normally wage earners. As the chart indicates, they are not entering the labor market at any phenomenal rate, and, inasmuch as they are our most important labor reserve, we may expect a continued flatness of the employment curve. Although the quit-rate moves by fits and starts, the March downturn can be attributed in part to the national campaign now being conducted by the War Manpower Commission against changing jobs.



Data: U. S. Bureau of Labor Statistics, Federal Reserve Board

© BUSINESS WEEK

Mr. Industrial Executive:

Your needs may be: Improving present mechanisms, or developing new mechanical ideas, parts or complete assemblies, experimental or mass production. Or you may need help on what to make for peacetime. Though our complete production facilities are on Aircraft Armament bomb releasing mechanisms, etc.... **WE CAN THINK ON YOUR PROBLEM NOW.** Also for anyone outside U. S. A., let us assure you that Tariff Walls, Money Exchange or Distance will present no insurmountable barriers to rendering the unique Spriesch service... After Victory.

**YOUR POSTWAR
NEEDS MAY BE
SERVED BY THIS
MESSAGE AND
OUR 36-PAGE
BROCHURE
"INGENUITY"**

HOPPER PAPER CO., INC.

DIVISION OF THE WESTERN TABLET AND STATIONERY CORPORATION
MANUFACTURERS
TABLETS, COMPOSITION AND NOTE BOOKS
LOOSE LEAF BINDER AND FILLERS

RICHMOND, VA.

Mar. 8, 1943

Spriesch Tool & Manufacturing Co., Inc.
Buffalo, N. Y.

Gentlemen:

Your attention-compelling advertisement in a recent issue of Printers' Ink prompted us to request your brochure "Ingenuity." Several days ago we received information indicating your interest in preparing contracts for your organization after the war.

Our corporation, comprising four manufacturing divisions, are engaged in light industrial work. Specialty machinery is used but there is room for substantial improvement on the machinery we now operate with and we are not properly mechanized throughout the business. There is much hand work done which should be eliminated. The war has brought this forcibly to our attention.

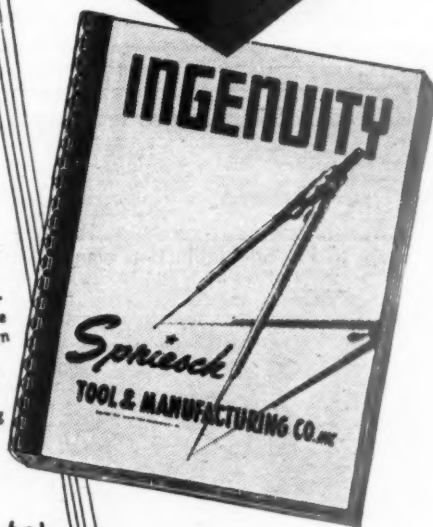
Are you interested in the development of new machines for our company? If so, tell us how we should proceed to place our problems before you for study now, with the idea of producing these machines as soon as the war is over.

Very truly yours,
HOPPER PAPER CO., INC.

By: *Robert Hopper*

This letter reproduced by permission, will give you an idea of one company's postwar planning

... We've been serving the Army since 1928; went on our present 24 hour production schedule long before Pearl Harbor.



Write (on your business letterhead, please) for our informative 36-page brochure "Ingenuity." In it is illustrated and described our extensive facilities and our spirit... and both could serve you well After Victory. Joseph J. Cheney, President.

Spriesch ★ **TOOL & MANUFACTURING CO., Inc.**
Established 1923
19 HOWARD STREET • • • BUFFALO, NEW YORK



BALTIMORE BLUEPRINT

Baltimore was the War Manpower Commission's guinea pig (BW—Oct. 3'42,p17). Its experience with the nation's first voluntary job-control program gave Washington some benchmarks for measuring labor market problems and assaying remedial measures in other manpower shortage areas. Since the Baltimore plan was launched, it has been instituted with some variations in 67 other communities and will be extended to 105 more



localities. Every major industrial center will soon have its manpower controlled by the plan or some variant of it. But that it's no panacea is attested by an Office of War Information survey just completed in Baltimore. Shortage of adequate transportation facilities is one of the chief complaints. Excursion boats being used to ferry workers (above left) are jammed; traffic congestion becomes extremely intense when shifts change (above right); maintenance of existing buses (below) is a touch-and-go proposition.



California corporation, an unusual step for such an organization.

An outstanding program at present is cosponsorship, with Vega Aircraft, a subsidiary, of the Lockheed-Vega Employees Buck-of-the-Month for Victory Club. Members contribute \$1 a month for distribution among war charities and service organizations. The donation for the first year was \$300,000 without any loss of production time or individual solicitation.

• **Varied Program**—Other L.E.R.C. activities—degree of individual participation prescribed more or less by wartime necessity—include:

(1) A broad service committee program which provides money to employees in

need of funds; radios, flowers, or cigarettes to the convalescent; cigarettes to former Lockheed employees in the armed services; and other attentions needed.

(2) Cosponsorship with Vega of the Service Star Women, a group of more than 500 women employees who have close relatives in the armed services. They carry on a varied campaign to speed production, reduce absenteeism, and build morale both in the factories and among their men at the front.

(3) Entertainment during lunch periods at the factories, including returning war heroes, statesmen, motion picture and radio stars, visiting bands, and motion pictures.

• **308 Bowling Teams**—A comprehensive sports program, open to every employee, includes bowling, softball, basketball,

rangers (equestrian), boxing, wrestling, golf, baseball, tennis, rifle and pistol shooting, badminton, archery, roller skating, skiing. The club believes 308 bowling teams constitute the largest bowling league in the world. During basketball season, there were 57 departmental teams divided into eight leagues.

An educational program offers tours of the plant for new workers, and, in peacetime, visits to sites of historical or scenic interest. Lecturers are brought before Lockheed crowds, including employees and their families. The club sponsors a band, a full symphony orchestra, a small dance orchestra, and a choral club, which appear at lunch periods, at entertainments, and on radio programs.

• **Special Hobbies Promoted**—Seven drama clubs present plays for employees and sometimes for the public, under direction of former Hollywood experts now working on the Lockheed production line. The club also sponsors special interest groups such as a model-and-hobby club and camera clubs.

Boys at Work

Combining job with high school study improves youth's facility at both and raises his prestige with classmates.

A checkup on "boypower" after three months, by Lockheed and Vega plant managers, as well as Burbank and Pasadena (Calif.) school authorities shows not only that the 16-17-year-olds are highly satisfactory in the factories but also that the work improves their school ratings.

• **Studies Improve**—Of 200 Burbank boys employed part time since Feb. 1, only one lost his factory job because his scholarship suffered. School work improves because the boys, engaged in actual production, see their effort transformed into money and get a clearer concept of the practical usefulness of study. Mathematics and physics are no longer stuff that may come handy some time—they can be applied tomorrow, on the aircraft job.

The part-time boy rates much like an athlete on school teams. To stay on the job, as on the team, he must meet certain school standards. Alternation between school and factory eliminates monotony. The boy able to hold his position in both is the 1943 model of the football hero.

• **Need Thousands More**—More than 1,500 school boys are now employed by Lockheed and Vega, hired through their schools, with the consent of parents. Some work four weeks, then go back to school four weeks; others work four hours a day and attend school four



MODIFICATION WORKERS



CARGO HANDLERS



ENGINEERS



TRAFFIC REPRESENTATIVES

...to our fellow workers on the Fighting Fronts

MANY OF YOU out there on the fighting fronts once worked side by side with us here at United Air Lines. It's hard for us to visualize what your lives must be like today. For we, like so many millions of Americans, have no enemy hurling bombs and shells at us to remind us that his goal is our total destruction.

For that reason, perhaps it has taken us longer to realize the full meaning of all-out war. Perhaps we've let food rationing, and taxes, and the number of miles we can drive our cars become overly important to us.

We cannot all shoot down Zeros. We cannot all sink U-boats. We cannot all blast Nazi pillboxes to powder.

But unless we work harder and better today than yesterday, we delay your return home. And when you do come back to your job here at United, we must be able to look you squarely in the eye in the honest knowledge that we have carried our full share of this war's burden.

Realizing the urgent need for every ounce of energy and courage we can muster, we of United volunteer this pledge!

This is our pledge to you . . .

★ I will do the best job I know how to do.

★ I will fulfill my responsibility as a citizen by buying War Bonds, taking part in Civilian Defense activities, supporting the Red Cross, and performing willingly all other home front duties required of me.

★ I will neither spread rumors nor talk about anything that might help the enemy.

★ I will not complain.

★ I will accept my sacrifices here just as unselfishly as you are accepting your greater sacrifices out there.

The Employees of UNITED AIR LINES

This pledge has been forwarded to each of the 900 United Air Lines employees in the Armed Forces all over the world



DISPATCHERS



PASSENGER AGENTS



MECHANICS



MACHINISTS



INSTRUMENTS



OFFICE WORKERS



PILOTS



MEDICAL ASSISTANTS



RADIO OPERATORS



STEWARDESSES



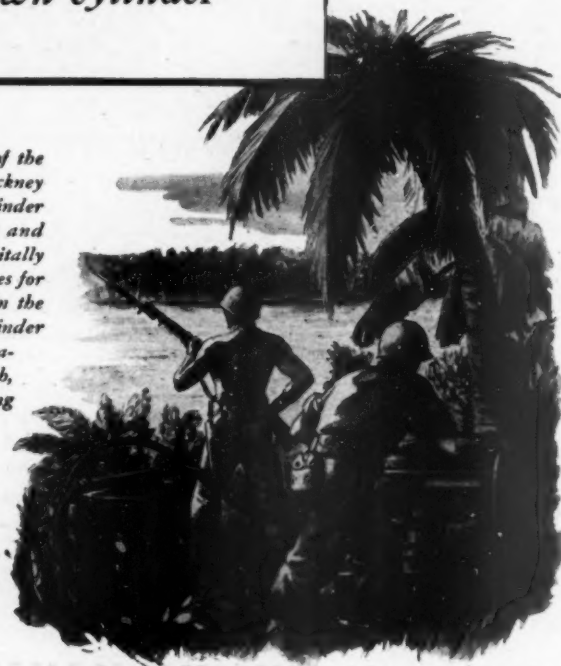
EXECUTIVES



SHEET-METAL WORKERS

Jungle waters are purified ...with the aid of a deep-drawn cylinder

Shown below is another of the many products built by Hackney for the war effort. This cylinder is used for transporting and storing liquid chlorine, vitally needed by the armed forces for purifying water supplies in the tropics. This Hackney Cylinder is cold-drawn to specifications. It meets all the strength, weight, safety and handling requirements for this type of container.

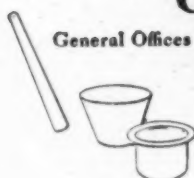


Hackney Chlorine Cylinders are used in the transportation and storage of chlorine, bringing it safely to destination over thousands of miles of land and sea. They comply with I.C.C. specifications. These cylinders are made from flat circular plates of steel. By a series of cupping and cold-drawing operations they are formed into seamless cylinders made to exacting specifications with uniform sidewall thickness. The result is a lightweight cylinder, yet one providing adequate strength.

It may be that your war and postwar problems can be solved by Hackney designs and production of special deep-drawn cylindrical shapes. They may prove advantageous for war products you are now making—for improving existing equipment—and in the design of new products for the postwar period. Through use of Hackney Deep-Drawn Shapes, manufacturers have been able to conserve material, man-hours and equipment—assure adequate strength while reducing weight. Write today for all the facts.

Pressed Steel Tank Company

General Offices and Factory • 1493 SOUTH 66th STREET
Milwaukee, Wisconsin



DEEP-DRAWN
SHAPES AND SHELLS



hours. The factories could use thousands more and expect to have twice as many by summer.

The War Manpower Commission is putting official pressure behind utilization of boys in industrial plants. Recently, it convened a conference of state apprenticeship directors from nine states and Hawaii to study means of dovetailing completion of high school studies with useful employment. Conference were told about a metal-working plant in Illinois which employs high school boys 33 hours a week. The boys attend school 15 hours a week and receive both scholastic and apprenticeship credit.

REEMPLOYMENT ASSURED

In place of the 48-hour week, downtown stores in Cleveland, through the Retail Merchants Board, have made a formal agreement with the area War Manpower Commission to grant reemployment and seniority rights to male employees who transfer to war production jobs.

Dr. William P. Edmunds, area director of WMC, said the guarantees practically duplicated those provided for men who enter the armed services. The agreement, however, does not apply to maintenance men, engineers, firemen and truck drivers, most of whom already have the 48-hour week.

Representatives of the United States Employment Service are canvassing store employees to find likely candidates for war factory employment. The store plan to find replacements among older men, or women who could not meet war production job requirements.

WELDERS' SEED MONEY

An adaptation of the "seed money" idea designed to start postwar market growing now has been worked out by the Lincoln Electric Co. of Cleveland, manufacturers of electric and welding equipment. On the hunch that welders may not find industrial jobs too plentiful when the war ends, Lincoln has been circularizing them with a "Lincoln Welder Savings Plan."

The plan urges welders to save systematically so they will have the cash to buy welding equipment as soon as it's generally available, and thus be ready to get into business for themselves. Lincoln Electric designates the Cleveland Trust Co. its agent for the plan.

Welders who subscribe start a savings account in this bank. The account gets the same treatment as all savings accounts except that it is earmarked by the owner as seed money for a postwar business. The owner can withdraw his money any time, although he's urged to make deposits regularly, to budget his living expenses, and to put 10% of his income into war bonds.

WEIRTON OVERRULED

The U. S. Circuit Court of Appeals in Philadelphia has upheld the National Labor Relations Board in its marathon fight with the Weirton Steel Co. The Court held that evidence in the 39,000 pages of record which the board gathered in 17 months of hearings was ample to support a conclusion that the company dominated the Weirton Steel Employees Representation Committee and must reinstate with back pay employees fired for outside union activity.

The court took cognizance of the fact that Weirton's chief defense was an attack on the fairness of the board's hearings. Since most of the criticism was directed at a trial examiner whom the board subsequently replaced, affording an opportunity for a reversal of any erroneous rulings by the first examiner, the court found the defense largely irrelevant. Specifically, the court upheld the authority of the board to exclude from the hearings a contumacious attorney for the company.

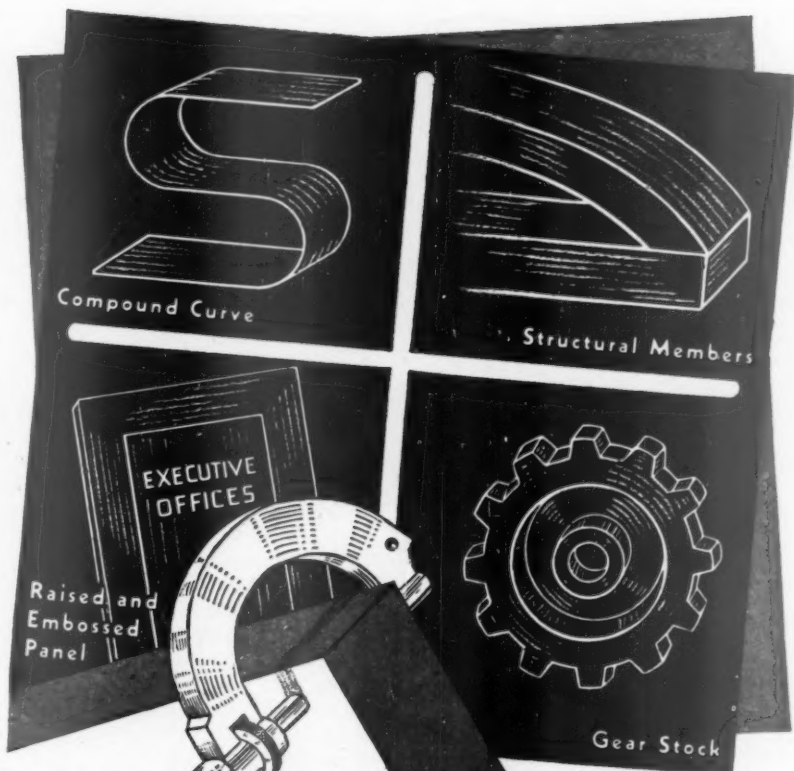
RULES ON SICK LEAVES

Instructions for handling application for new or established sick-leave plans were sent to regional war labor boards recently by the National War Labor Board. They provide that, while indus-



FAST ON THE TRIGGER

Claiming a new world's riveting record, two five-man teams recently hammered home 4,002 rivets in 5½ hours at Los Angeles Shipbuilding's yards. As gun chattering incessantly, 31-year-old Denver H. Spann (above) obtained the faster team—finishing 15 minutes ahead of the runnerup. Spann's average on ¾-in. rivets was 3.8 per hour.



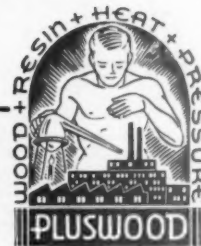
PLUSWOOD

A Wood Alloy

is a *New Engineering Material* that can be made to your order

For the post-war era, Pluswood offers you a brand new technical material, high in aesthetic value, with an exciting weight-strength ratio. A wood alloy, made by a chemico-mechanical process, it possesses structural strengths exceeding those of many metals. A non-conductor with amazing qualities of density and toughness, Pluswood can be made to your pre-determined engineering description. Thick or thin, pliable or rigid, this wood of new wonders is available in thickness ranging from 16 inches to 1/16 of an inch, and in any size up to 7 feet by 18 feet. Highly resistant to swelling, shrinking, corrosion, fire, and thermal shock—Pluswood will retain its dimensional stability so completely that only micrometer measurements indicate changes.

A dependable, responsible organization stands behind Pluswood from forest through saw mills, veneer mills and factory—established by the Lullabye Furniture Corporation, since 1897 America's foremost manufacturer of juvenile furniture. Pluswood maintains a laboratory service that you are urged to use. Write for an engineering bulletin that will give you more complete information.



- WOOD** Select northern birch or maple—cut from vast northern timber reserves.
- + RESIN** Impregnated into veneers by methods and techniques developed by Pluswood research.
- + HEAT** 300 K. V. A. high frequency electrostatic generating unit—largest in the country for this purpose—delivering 540,000 B.T.U.'s per hour.
- + PRESSURE** Largest and most powerful press in the plywood industry—with total pressing capacity up to 5,000,000 pounds.

PLUSWOOD Incorporated, Oshkosh, Wis.

Associated Companies

{ NORTHERN HARDWOOD VENEERS, Inc., Butternut, Wisconsin
LULLABYE FURNITURE CORPORATION, Stevens Point, Wisconsin
ALGOMA FOREST PRODUCTS, Ltd., Bruce, Ontario, Canada



Fine as a Rare Jewel

PERSONNA

Precision Double Edge Blades

10 blades'1.
and WORTH it

Proof of the pudding is that exacting men everywhere are going for this blade. They want the best possible shaving results, and they get them in Personna. Precision-made by Master Cutlers and rigidly inspected and then leather stropped at the factory.

PERSONNA BLADE CO.
EXECUTIVE OFFICES • 399 MADISON AVE • NYC

If your dealer can't supply you, send check or money order to Department F

HOOPERWOOD COTTON DUCK

Since 1800 (through six wars) the HOOPER name has symbolized highest quality in Cotton Duck and other Heavy Cotton Fabrics, Paper Mill Dryer Felts, Paper Cloth, Rope and Sash Cord

**WM. E. HOOPER
& SONS CO.**

New York • PHILADELPHIA • Chicago
Mills: WOODBERRY,
BALTIMORE, MD.

Labor Shortage Areas Grow

The total number of labor market areas classified as to the stringency of their labor supply and primarily as a guide for procurement agencies in the placing of war contracts is now 278, according to the War Manpower Commission's new grouping. Only 269 were on WMC's first list (BW—Feb. 20'43, p14).

Nine communities have been added to the list of Group I areas where acute labor shortages exist, but two have been removed from that classification.

• **Revised Monthly**—The area classification, which serves also as a guide in planning special recruiting programs by WMC and in determining special policies of the commission, such as the application of the 48-hour week and the imposition of area job stabilization plans, is revised each month to make allowance for changed conditions.

WMC divides the labor areas it keeps under surveillance into four groups:

Group I—Areas of acute labor shortage, 42 areas.

Group II—Areas of labor stringency or in which a labor shortage may be anticipated within six months, 97 areas.

Group III—Areas in which a general labor shortage may be anticipated after six months, 66 areas.

Group IV—Areas in which the labor supply is and will continue to be adequate to meet all known labor requirements, 73 areas.

Areas in Group IV are designated as those in which an effort should be made to renew contracts, place new contracts, and locate new production facilities.

• **The Revisions**—The latest changes are as follows:

Transferred from Group II to Group I:

Akron, Ohio
Chambersburg, Pa.
Pine Bluff, Ark.
Salt Lake City, Utah
San Francisco, Calif.
Sturgeon Bay, Wis.
Trenton, N. J.
Wilmington, Del.
Jacksonville, Fla.

Transferred from Group I to Group II:

Des Moines, Iowa
Manitowoc, Wis.

Transferred from Group III to Group II:

Benton Harbor, Mich.
Providence-Pawtucket-Woonsocket, R.I.
San Jose, Calif.

Transferred from Group II to Group III:

Elmira, N. Y.
Hagerstown, Md.
Joliet, Ill.
Marion, Ohio
Williamsport, Pa.

Transferred from Group III to Group IV:

Minneapolis-St. Paul, Minn.
Newburgh, N. Y.
Omaha (Neb.)-Council Bluffs (Iowa)
Poughkeepsie, N. Y.

Transferred from Group IV to Group III:

Augusta, Ga.
Boston-Quincy-Hingham, Mass.
Columbus, Ga.
Fitchburg, Mass.
Nashua, N. H.

Transferred from Group II to Group IV:

Bristol-Kingsport, Tenn.
Terre Haute, Ind.
Point Pleasant, W. Va.

Classified for the first time and added to the list:

Connersville, Ind.—Group II
North Adams, Mass.—Group III
Spartanburg, S. C.—Group III

trial sick-leave plans require board approval, "any reasonable sick-leave plan may be approved."

The board gave its regional agencies permission to validate time-off-for-illness programs on the theory that "such plans do not result in general increases, have no inflationary tendencies, and should result in increased production and a more effective prosecution of the war."

BOOST FOR BOND BUYERS

The Treasury Dept. and the National War Labor Board have assured employees in the more than 40,000 firms where over 10% in payrolls is being regularly allocated to war bond purchases that above-quota bond buying would in no way jeopardize possible

wage increases or be taken into consideration in deciding wage rate disputes. This joint and unusual declaration was necessitated by space given in the labor press to the dissenting opinion of H. P. Neff in an NWLB panel report approving wage increases for Firestone California plant (BW—May 8'43, p9).

Neff, who sat on the panel as an industry representative, disagreed with public and labor members who investigated the dispute and opined that pay boost was not essential to correct maladjustments as workers were over-subscribing their bond quota by 3%.

The Treasury, fearful that such idea might retard the payroll deduction campaign (page 102), protested NWLB. The board responded with official statement that its members unanimously shared the Treasury's views.

Steel Doors—12 Stories High!



Through these Truscon Steel Hangar Doors will pass the blimps which help to guard our shores. This is one of the highest and widest mechanically operated straight slide door installations in the world. When the door panels are completely retracted into their respective positions on each side of the building, a total obstruction-free area of 120 x 220 feet is made available. Through this tremendous opening will pass great submarine detectors, now so important to war, and destined to be of even greater importance in the Air Age of tomorrow.

In the field of aviation particularly, Truscon Steel Company is ready with the solutions to terminal and hangar door problems. As the world's largest builder of straight-slide and canopy-type doors, Truscon has engineering and fabricating facilities unexcelled in the industry. Keep in touch with Truscon to be a step ahead in your peacetime building plans.



TRUSCON

Steel Company

YOUNGSTOWN • OHIO

Subsidiary of Republic Steel Corporation

MARKETING

War Ads that Pay

Fewer people can identify war advertiser with peacetime product, but some agencies are licking the problem.

"Ways and means of preserving trademark identity by use of war advertising themes" was not listed on the agenda when the American Assn. of Advertising Agencies met late last month, nor this week at the spring meeting of the Assn. of National Advertisers. But members at both sessions were as much or more concerned with such bread-and-butter problems of the trade's existence as with more cosmic questions outlined for official consideration.

• **Preserving the Trademark**—Manufacturers, who have spent years building up brand consciousness through product advertising, don't intend to let trademarks lose customer prestige just because they have forsaken production of consumer goods and gone in energetically for military production.

Such bouquets as the 50 outstanding war advertisements reproduced in this month's Advertising & Selling with the blessing of the Office of War Information and the industry's Advertising Council are gratefully received by advertisers and their agents. But no amount

of tribute for contribution to morale and the war effort is compensation to the manufacturer who expects his advertising dollars to preserve consumer preference for his automobile or refrigerator while he's making tools or guns.

• **Identification Drops Off**—The trade began to suspect before war advertising was out of the experimental stage that the program was backfiring, that brand consciousness was being snowed under by the avalanche of war advertising. Subsequently, a survey by L. M. Clark, Inc., market research agency, which regularly checks readership of magazine advertisements, reported that 80% of war-effort advertisers were suffering a serious loss of product or trademark identification. Yardstick used in the survey was the correct association of advertiser with advertisement in the reader's mind. Findings were that in 17 out of 21 cases fewer men recognized correctly the product or service advertised than had identified the same advertiser correctly in prewar copy. Decrease was from 4 to 30 percentage points. Identification by women was only slightly nearer the prewar rate.

Advertising agencies have been anything but hush-hush about these findings and assure industry such trademark obscurity can be avoided. Agency competition, in fact, is focusing hotly on that point in soliciting accounts.

• **How-to-Do-It Problem**—Copywriters on some accounts can, of course, point to instances in which war advertising identification is better than prewar product advertising. No. 1 device for maintaining trademark identity is to carry over familiar elements from peacetime advertising. Thus the Gruen Watch Co.'s copy transfers the trademarked phrase "precision" from watches to instruments of war. On the other hand, experts attribute a considerably reduced identification of advertising for Talon slide fasteners to the elimination of the famous "gaposis" theme characteristic of the company's prewar advertising.

• **Too Much Success**—Notable for bettering identification in war advertising is Willys-Overland, whose association with the jeep has lowered cost of securing brand association per reader by nearly 40%. As a matter of fact, Willys has been too successful, if anything, in identifying itself with the jeep—so successful that last month the Federal Trade Commission issued a complaint against Willys on the ground that its advertising had detracted from the proper credit due American Bantam Car Co. for creation and development of the jeep.

Pontiac has reduced cost of securing



The Life Saver that was waiting in Honolulu, Dec. 7, 1941

There was one instrument in all the world... the only one of its kind... that could save lives... Gruen placed it in a Honolulu hospital on December 7, 1941, when it helped a small group of doctors to prevent the untimely loss of a young man's life... This is only one example of the many ways that electrical instruments are helping to fighting men.



Gruen, faced like other advertisers with the big job of keeping its trademark alive, plays up its "precision" theme in most war advertising copy.

GOOD NEWS! More than 2 times as many

BOEING FLYING FORTRESSES

were delivered in 1942 as in 1941

Chart A: DELIVERIES OF BOEING FLYING FORTRESSES

Year	Deliveries
1941	1,000
1942	2,000

Chart B: BOEING FLYING FORTRESSES IN SERVICE

Year	In Service
1941	1,000
1942	2,000

BOEING

PRODUCERS OF THE FLYING FORTRESS • THE STRATOLINER • THE SUPERSONIC

Good public relations policy dictate that big war contractors tell the public what happens to the money that comes out of its pockets. Boeing did the job by buying newspaper space report on the millions of dollars that go into Flying Fortresses.

correct identification from \$12.15 per thousand men readers to \$8.50 and from \$56.00 per thousand women to \$24.45 by retaining well-established advertising symbols in ads which tell war-effort story.

Agency men admit that, given sufficient advertising dollars, correct brand association can be established without retention of certain familiar elements carried over from prewar advertising but they warn advertisers that accomplishment of such a transition probably would only necessitate another long and expensive transition back to peacetime product identification.

• **Correcting Readership Lag**—While advertisers expect to do more than stimulate Victory gardens or successful advertising budgets, they still are interested in whether total readership, apart from brand identification, is on the up trend or down. Compared with prewar averages, all types of war advertising—conservation, war work, and commercial use of war theme—were better read by men in the first six months of last year. But women's interest was at least 10% lower than for product advertising; thus the trend in the last half of 1942 away from portraying the mechanics of war. Feminine readership went up when personalized copy



CUSHIONING *Flagships* FOR EASY LANDINGS

GLIDING in to an easy landing as a climax to a safe, comfortable flight is the result of attention to many details. That "cushioned landing," for example, is prepared before the flight by a serviceman as pictured above. He is giving the oleo struts their exact amount of "air cushion"—and an Airco gas regulator does the job accurately. The same method is used for controlling the air pressure to balance the hydraulic system which operates landing flap brakes and retractable landing gear—and Airco nitrogen is the gas widely used for this purpose.

Numerous are the aviation uses of Air Reduction gases and

apparatus. For instance, an Airco regulator contributes to comfortable flight at high altitudes . . . arc welded jigs make possible mass production of airplanes . . . gas welding and cutting torches, as well as gas cutting machines play vital roles in the production of struts, engine mounts, and many other important aircraft parts.

With these products and through its role as a leading producer of atmospheric and chemically derived gases, Air Reduction is helping to facilitate essential operations in almost every major industry—from shipbuilding to food packing. These far-reaching activities, now directed toward our one common objective, will play an important part in building better peacetime products.



General Offices:

60 EAST 42nd STREET, NEW YORK, N. Y.

In Texas:

Magnolia-Airco Gas Products Co.
General Offices: HOUSTON, TEXAS

IDLE CYLINDERS ARE PRODUCTION SLACKERS: KEEP 'EM ROLLING FOR VICTORY!

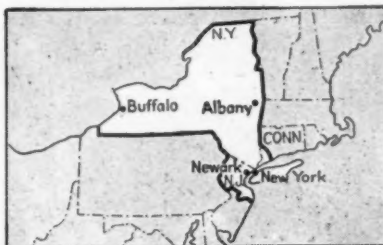
THE REGIONAL MARKET OUTLOOK

A summary of industrial, agricultural, and other trends affecting the income and general business prospects in the 12 Federal Reserve districts of the nation for most recent month. (Last month's report: BW—May 8'43, p. 72.)



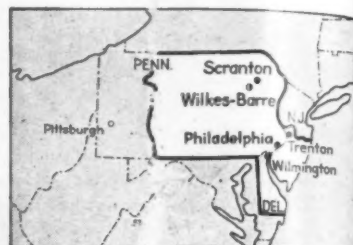
• **Boston**—The tightening pinch on manpower supplies in this highly industrialized region is reflected in the up-classification among labor-shortage areas (page 90) of the important Boston, Providence, and Nashua industry centers. Some further increase in arms employment is to be expected, but the worry is over the ensuing effect on such consumers' goods lines as textiles and shoes, in both of which production has declined more than in the rest of the nation.

Northern Maine, Vermont, and New Hampshire have yet had little in the way of war orders. There actually have been some losses, such as in the resort business, due to gasoline rationing. But, with labor shortages elsewhere, some few plants are being located in these rural areas. Elsewhere, as in Vermont where new asbestos mines are being opened to reinforce the state's position as the leading national producer, there has been an increase in mining and quarrying.



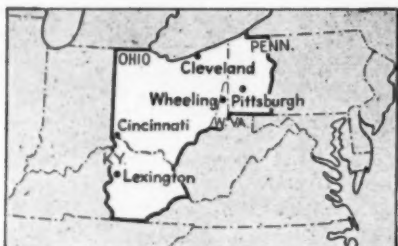
• **New York**—Autumn apparel markets opened last month in New York city almost a full two months earlier than "normal." This points up the tightness of clothing supplies relative to demand. For, with textile output easing and government takings rising, the important metropolitan clothing industry is beginning to be really hurt by materials shortages. Meanwhile, war business is looking up—both arms contracts and munitions shipping activity. Continued heavy volume on the stock exchange also is helping employment. Still, the "big city" stands low in the income-gain rankings.

Most of the rest of the district—except for upstate New York farming sections—is still up with the national leaders, however. The Buffalo, Schenectady, and Utica areas, and the whole of northern New Jersey are busy with war work, and the chief difficulty, as in most similar areas, is now the manpower shortage.



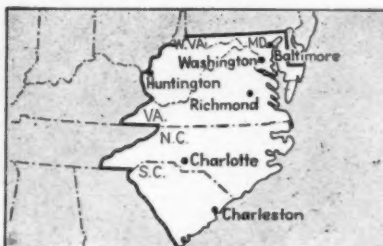
• **Philadelphia**—Although employment and payrolls in the region as a whole have kept pace with national totals, either manufacturing separately or in nonagricultural work generally, the five-county industrial area coming around this city continues to advance a step faster than the national average. That, of course, primarily reflects the surge in naval and merchant shipbuilding along the Delaware, though ordnance and aircraft work also have gained.

Sharply reduced now in comparison with a year ago are Altoona and Johnstown, with most other districts conforming to the general movement, and only a few such cities as Williamsport, Bethlehem, and Wilmington farming sections have, all through the war, managed a margin to match the rise in receipts picked up in midwestern farm areas; now a shortage is complicating manpower problems and weather difficulties.



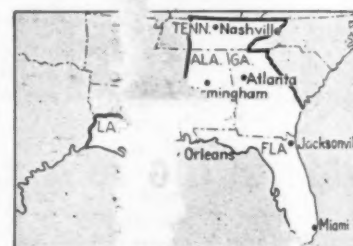
• **Cleveland**—Of all regions, this district has been most affected by the outbreak of strikes during May—in the coal fields around Pittsburgh, in the rubber factories in Akron, and in war plants in Toledo, Cleveland, Canton, etc. Though the war production lost can't be made up, payrolls lost during stoppage time may well be more than recouped if wage adjustments follow.

Other business trends have run much as expected. Almost no new plant awards occur now, and only a few projects remain to be completed. Though arms production is not rising strongly any longer, the manpower shortage is constantly growing more stringent, affecting such civilian lines as ceramics, clothing, paperboard, etc. Farmers have had to contend with a rainy spring, and income prospects would hardly be considered bright, relative to 1942 and its bumper output, were it not for the price advances of recent months.



• **Richmond**—The rapid tapering of construction employment during recent months has had a more marked over-all effect in this region than in most because of the particularly large concentration of military projects. Result has been to emphasize manpower disparities in the district. In war-boomed areas in the northeast sections, and in a few other spots, released workers have been quickly absorbed, whereas in many inland areas of relative labor surplus heretofore, there has been some diminution of payrolls.

Farming sections in this region, which ordinarily consume large quantities of fertilizer, have increased purchases markedly this year; since production of fertilizer is concentrated around Hampton Roads and Baltimore, the whole operation is a district net gain. In any case, farmers are watching the weather, recalling the contrast in crop yields between the 1941 low and 1942 high.



• **Atlanta**—Reflecting typical national conditions, production in two important "regular" lines in this region, textiles and lumber, has fallen below last year's level. Meanwhile, construction activity, primarily of a military character, has dropped, and the net influx of new troops has begun to decline. The one nonagricultural factor working for increased income is armaments, and the bulk of the new gains is taking place in shipyard and coastal centers. Employment in most inland areas has flattened out, with current levels depending on the extent of previous arms expansion.

First income loss due to weather is being sustained by Louisiana strawberry, Georgia peach, and other southern fruit and vegetable raisers (except Florida). Cotton, of course, is the big cash crop, and production prospects can't be properly evaluated for several months yet—nor, therefore, can be the farm income outlook.

A GUIDE TO INCOME TRENDS

Industrial regions contend with a worsening manpower pinch, while floods point up a generally poorer weather prospect for agriculture than last year. Stimulus of the construction boom and the troop influx ending in the South.



• **Chicago**—Heavy rain throughout this corn country worry farmers. Increased plantings may not be accomplished due to the shortening of the sowing season. Silver lining, however, may be proved later: If summer weather runs dry, the spring rains may be an unsuspected boon. In any case, hog growers are expecting official discouragement of very much further expansion in production, so huge is the gain on grains; poor crops would only aggravate the prospect of a flattening in stock production and income six months from now.

Employment in most industrial centers is still expanding, with no power shortage the chief concern, despite cancellations and cutbacks of some orders, contracts and actual shutdowns of some plants. Islands of unemployment have, however, appeared only in a few small towns. The recent outcrop of strikes—though not felt for the most part—has production men worried.



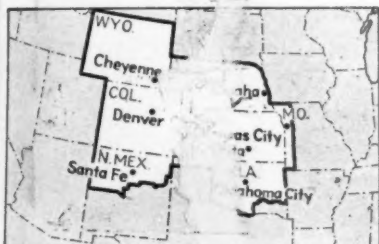
• **St. Louis**—Floods have hit this district by far the hardest of any in the nation. Worst damage extends from southern Illinois through Missouri into Arkansas. Perhaps 1,500,000 acres of crop land have been flooded in all. Much corn, cotton, and other planting will have to be redone—if it can be—and some grown wheat and vegetables will be permanently hurt. Livestock losses have been relatively light, but farmers have marketed many animals that they had intended originally to feed to heavier weights. All in all, it is clear that 1943 farm income here has been markedly reduced below what it would have been.

Interference with transportation caused industrial operations also to be affected—but much less seriously. Payrolls are still gaining in arms centers in the north, including such towns as Granite City, East St. Louis, and Quincy, near this city. Memphis, however, has been lagging.



• **Twin Cities**—This northwestern farm region isn't overly concerned about excess moisture coming after a delayed spring. But it would welcome some sun now—though not too much later on. The potential for a bumper crop year still exists, even if no one expects one. Prices are favorable for flaxseed and will grow more so later in the year for wheat as the government pushes for bigger 1944 plantings. And, this feed-importing region can turn a livestock profit on all the corn it can raise.

If the weather does run bad, however, armament will not be coming to the rescue. Minneapolis-St. Paul is now considered a labor surplus area. Though miners have received a wage boost, iron ore production will not come up to expectations, due to the delay (1) in lake shipping, and (2) steel capacity expansion. Small shipbuilders are concerned about a recent order centralizing purchases of supplies.



• **Kansas City**—Weather is beginning to take its anticipated toll of agricultural prospects in this region. Farmers expected that 1943 weather could not duplicate 1942's extraordinarily favorable conditions, but they didn't quite look for a sharp drop in winter wheat yields, a spring-planting delay due to cold, and then an outburst of excessive rains resulting in floods. Of course, a few good months now could restore the situation to one better than normal. In the sheep-raising country, though pastures are not in as good shape as a year ago, the manpower shortage did not cut into either the lamb crop or the wool crop. Indeed, in the western part of the district generally, growing prospects are more favorable than in the eastern sections.

This reverses the armament emphasis. Though few new war plants are scheduled, employment still is rising in the Omaha-Wichita-Tulsa-Kansas City arms area.



• **Dallas**—With the seasonal upswing in farm work, and the expansion in forces at new arms plants, the labor supply in this region has tightened up noticeably of late. As farm needs climb to a summer peak, the pinch will worsen; of course, in most sections, high-pay war factories will be able to meet requirements by draining other lines.

Though Panhandle wheat and south Texas and northern Louisiana truck crops have been hit by weather, the key cash crop, cotton, is progressing fairly well, and ranges in the west are not too badly behind 1942. Too, truck crop acreage is being increased in east and central Texas.

Income in this region still is outstripping the national average, especially in those towns and cities stimulated by new plants or cantonments. East Texas is outstanding because of scattered war projects, proximity to Gulf Coast war centers, and favorable farm prospects.



• **San Francisco**—Though price gains will lift receipts, over-all prospects for fruit and vegetable crops in this, the nation's chief producing region, do not measure up to 1942 harvests—as anticipated, because of weather and labor difficulties. Actually, farm employment so far has held close to 1942 levels, partly because of importation of Mexican laborers.

Immigration from other sections, which has been an important source for district manpower, has slumped sharply from 1941 and 1942 totals. Near-cessation of the population movement, and the almost full utilization of existing manpower point to a flattening in employment here soon. Employment of women in California factories is up to 200,000, and a 48-hour week has just been recommended for all southern California. Shipyards, plane plants, and supplying industries are still expanding—but it won't go on very much longer.

WHEELS AXLES MOUNTINGS



for Every Industrial Need!

For more than half a century, every conceivable form of industrial equipment has rolled smoothly, efficiently, and economically on EWC Wheels and Mountings. If you now use Wheels or Axles, or if you want to convert Stationary Units into Portable Equipment, write us for engineering suggestions. No obligation.

EWC WHEELS

ELECTRIC WHEEL CO., DEPT. BW, QUINCY, ILL.

SOUTH AMERICAN DEVELOPMENT

Executive engineer. Exceptionally broad experience surveys, development, installation, operation South American industries. Capable taking charge South American expansion program, sales, manufacturing. Native-born American, 48, Christian, married. Fluent Spanish. Salary \$12,000 +. Interview by appointment.

FW-346, Business Week
520 North Michigan Ave., Chicago, Ill.



I LIKE TO TRAVEL TOO...



If you are getting ready to swap your address for a new one, be sure Business Week (that's me) comes along.

I start out from Albany, N Y., every week and I can trail you to your new spot just as easy as I've been making the old one. And I'll like it, too.

All you have to do is give me orders like this:

Circulation Dept., Business Week
330 West 42nd Street, New York City

Please change my address.

NAME

OLD ADDRESS

NEW ADDRESS

people on the battle line and home front replaced the story of gleaming planes, tanks, and jeeps.

The much debated value of the Army-Navy E as an advertising feature got one answer in a recent Clark survey which found 257 Army-Navy E advertisements appearing in national weekly magazines to be definitely below average observation, compared with all war-effort advertising. In most cases, these ads were lower in interest and observation than other advertisements placed by the same companies.

• **Agencies' Own War Effort**—Wrestling with war-born problems of copy and art for regular clients is tough enough, but war has had an even more immediate impact on life in the average advertising agency. According to the Advertising Council, agencies last year contributed \$4,000,000 in payroll hours alone to government work and the war effort.

Outstanding are two war campaigns undertaken at standard fees. Kenyon & Eckhardt handled the \$500,000 fats-and-oils salvage campaign for Glycerine and Associated Industries (BW—Jun. 27'42,p20). McCann-Erickson prepared the far more ambitious \$2,000,000 scrap campaign, primarily for the iron and steel industry, but it also did a collection job for the rubber, tin, and other industries which contributed about a fourth of the campaign fund.

Working for the American Industries Salvage Committee, McCann-Erickson not only prepared the campaign but also organized state and local salvage committees. Result: peak wartime inventories within 1% of the steel industry's all-time high.



TRICKS WITH TROUSERS

Making emergency waterwings from pants is a neat trick taught U. S. Coast Guardsmen during functional swimming courses at Miami. First the men tie trouser bottoms securely. Then, grasping the belt line, they

Used-Car Bait

Auto finance company to lure machines out of storage with plan for immediate "trade-in" on a postwar model.

With sales of used cars moving along briskly, particularly in the Middle West (BW—May 8'43,p67), automobile dealers could come a lot closer to eking out a good existence if there were only more used cars to sell. But despite the most attractive spot cash offers, thousands and thousands of erstwhile motorists still keep the old bus jacked up in the garage. Stringent gasoline restrictions, notably in the East, may make it impossible for them to go out for a ride, and they may worry about rust in the cylinder block, dead batteries, and tire deterioration, but they're still not in a mood to sell. One big reason is sheer habit: America is used to trading its old cars in on new ones; it doesn't sell them for cash, particularly at a time when all the old standards of value, including the Red and Blue Books of used-car prices, have been thrown overboard.

• **To Break the Jam**—Last week, Universal C.I.T. Credit Corp., whose own fortunes have dwindled in step with those of the dealers whom it finances, announced a new plan designed to break the psychological block that holds up used-car sales and simultaneously to build a fine postwar market for the new cars—when they come.

The plan, as it will be sold to car

fling the pants overhead, thus forcing air into the open waists. A few flings twist the waist shut, and with the inflated trouser legs around their necks, the boys go overboard. Useful when ships go down quickly, the improvised preservers will keep victims of torpedoed craft afloat for long periods.



Which comes first — Your second helping? or our second front?

YOU WANT TO SEE THIS WAR WON — and won quickly. You want to see it carried to the enemy with a vengeance. Okay—so do all of us. But just remember...

A second front takes food... food to feed our allies *in addition to* our own men.

Which do you want — more meat for you, or enough meat for them? An extra cup of coffee on your breakfast table, or a full tin cup of coffee for a fighting soldier?

Just remember that the meat you don't get — and the coffee and sugar that you don't get — are up at the front lines—fighting for you.

Would you have it otherwise?

Cheerfully co-operating with rationing is one way we can help to win this war. But there are scores of others. Many of them are described in a new free booklet called "You and the War," available from this magazine. Send for your copy today! Learn about the many opportunities for doing an important service to your country.

Read about the Citizens Defense Corps, organized as part of Local Defense Councils. Choose the job you're best at, and start doing it! You're needed—now!

Contributed by the Magazine Publishers of America

EVERY CIVILIAN A FIGHTER

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your size!*

From the very smallest weekly - premium policy to the largest contracts written, we offer you the right fit at the right price.

**May we help you
study your
dimensions?**



The Prudential
Insurance Company of America
Home Office, NEWARK, N.J.

**NEED
WORK-BENCHES?**
... here's a ready answer

HALLOWELL

SHOP EQUIPMENT

Are sturdy, economical. Stand firm without costly bolting to floor. Choose from five heights, seven lengths, various widths - available in over 1300 combinations. Deliveries better than average. Send for free Work-Bench Bulletin today!



Fig. 928
Drawer is extra
Pat'd. and Pat's. Pending

STANDARD PRESSED STEEL CO.
BOX 598 JENKINTOWN, PENNA.

PATRIOTIC BIDDERS

Machines and merchandise worth \$150,000 brought \$1,825,000 in war bond pledges last week at an auction sale sponsored by the Machinery Dealers National Assn.'s Chicago chapter. Lathes, planers, and drill presses, all donated, actually went free to bidders, but bond pledges came high. For instance, a \$2,500 lathe cost one bidder \$75,000 in bonds; six candid cameras accounted for \$2,000 bond sales. At instance of members' wives, nylon hose and other feminine items were added to the catalog at the last minute.



owners by the auto dealers: "Trade in your old car now while you can get a liberal allowance on a postwar model. C.I.T. will stand behind your dealer and guarantee fulfillment of the contract. Your dealer will deposit funds with C.I.T. to cover the trade-in value of your car. And if at any time, you decide you'd rather have cash—well, a cash value will be specified in every contract (probably \$50 to \$100 below the trade-in value), and you can sell out the contract for the cash value whenever you like."

• **Keep Dealer Outlets**—Essentially a goodwill builder, the plan will enable C.I.T. to keep its dealer outlets pretty well in line until such time as it can once again do business at the old stand, providing accommodation credits for dealers to purchase floor stocks of new cars and making its big money by financing the sale of those same cars to the ultimate purchaser on a 6% discount or a 11% to 12% simple interest basis.

Additionally, operation of the plan

will, of course, help matters right now—for C.I.T. will prosper in about the same ratio as it helps the dealer. If prewar averages still hold good, C.I.T. can count on financing the resale of 50% to 60% of the cars which dealers acquire under the trade-in plan. Those sales won't always be made through the dealer who buys the used car in—in fact, with cars moving out of the rationed East into the Middle West, they are more likely to be made through different agents—but C.I.T. stands to profit, no matter where the ultimate sale is made.

• **Others May Follow**—C.I.T.'s maneuver took other big finance companies—notably Commercial Credit Corp. and General Motors Acceptance Corp.—ostensibly by surprise, and, despite assertions of a lack of interest in such postwar credit operations, it seems a fair bet that ultimately the other big companies may have to resort to some similar method of honeying up to their dealer outlets.

Big Liquor Suit

OPA jumps on liquidated distillery, alleging over-ceiling sales and asking triple penalty totaling \$7,000,000.

Last January, one of OPA's young lawyers picked up a Louisville newspaper and noticed that the Cummins Distilleries Corp. (then in process of liquidation) was proudly talking about a very handsome dividend to its stockholders. Estimating the value of Cummins' assets, the attorney calculated that—in his opinion—the dividend was a very liberal one indeed. Then the OPA began to investigate.

Last week, the investigation turned into the biggest law suit in OPA's history—a double-header \$7,000,000 penalty action that is alleging over-the-ceiling sales.

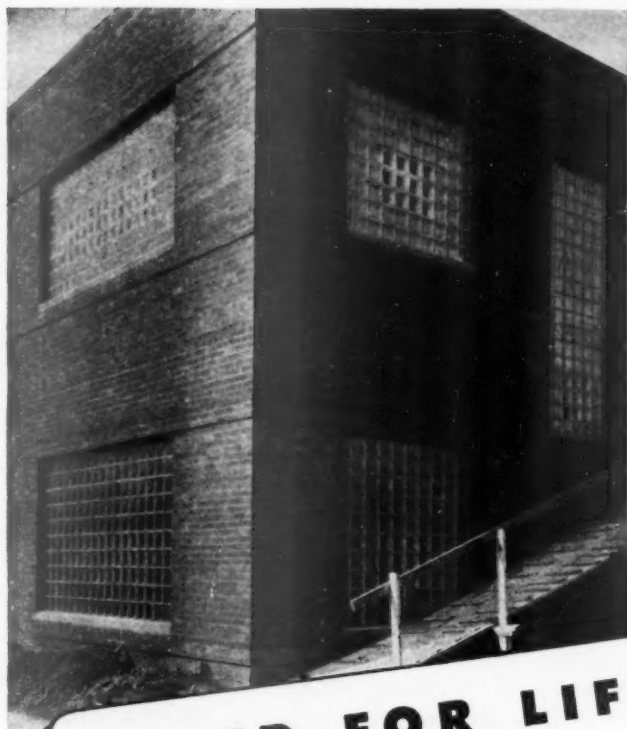
• **The Alleged Overcharge**—The price agency claims that in the process of liquidation, Cummins sold its whisky holdings to Calvert, National Distillers, and four big distributors at prices roughly \$2,250,000 over the legal maximum. Some of these sales were direct and some through an organization known as the Stockholders Distribution Committee.

The latter group was formed when Cummins distributed its assets, partly in cash and partly in whisky. Stockholders with large whisky holdings then pooled their supplies and sold out as a unit. So OPA is suing them as well as Cummins.

• **Triple Penalty Asked**—In a second action, OPA alleges that price violations also occurred during the active life of the corporation and came to around \$60,000. The two suits, at the triple penalty provided by the price control law, add up to \$7,000,000.

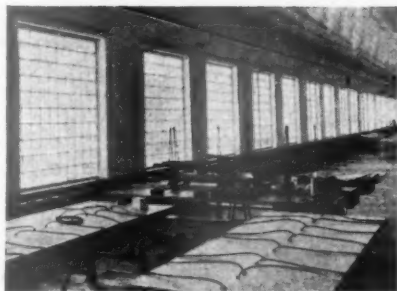
Although detection of the alleged Cummins' violation was something of a freak, there's nothing freakish about OPA's apparent desire to sock the liquor people to the limit of the law. OPA has lately been accusing that industry of breaking price ceilings right and left and evading regulations with all manner of slick tricks. To tighten the screws, the agency is now writing a whole new batch of ceilings that are intended to haul down prices (BW—May 22'43, p83).

• **Other Angles Watched**—Now the Cummins suit will probably start OPA off in still another direction—investigation of the transfer of whisky stocks from small to big distillers (BW—Apr. 24'43, p32). The price agency is warming up to the notion that many of these transfers were made through a third party to get around ceilings. A probe is in the offing.



40-year old building made ready for many more years of low-cost operation with INSULUX. In center of panels are block with smooth interior and exterior faces for limited vision.

FIXED FOR LIFE . . .
with INSULUX Glass Block Panels



INSULUX Light-Directional Block distribute diffused daylight evenly throughout interiors, cut power costs. Note daylight reflected from painted ceilings. INSULUX guards against infiltration, makes housekeeping easy.

Any competent mason knows how to install INSULUX Glass Block panels. Corrugated mortar-bearing edges on INSULUX block bite into the mortar, give the block a firmer grip.



Old buildings modernized today with INSULUX Glass Block are set for a lifetime of efficient operation.

INSULUX panels are *permanent* replacements for worn-out windows. They afford *controlled* daylighting—diffused, directed and distributed where it is used to best advantage. Their four-inch hollow glass-block wall construction effects substantial savings in initial and operating costs of air conditioning and heating equipment. INSULUX guards against dust, dirt, and moisture infiltration.

INSULUX Glass Block are available for immediate delivery today—at *prewar* prices. Installation is simple and fast—requires little or no metal. Maintenance costs are extremely low.

Get in touch with your local INSULUX distributor, or write us today, for construction details showing how INSULUX can replace worn-out sash in *your* building. INSULUX Products Division, Dept. 90, Owens-Illinois Glass Company, Toledo, Ohio.

OWENS-ILLINOIS
INSULUX
GLASS BLOCK

Man-Power is War-Power

*This is
No Time*

TO HAND-SPUD FACTORY FLOORS ★ ★

—in order to remove *embedded* accumulations of dirt, oil, grease, and shavings. *Hand-spudging* is a needless waste of man-hours, and delays unnecessarily the restoration of floors to a safe, sanitary condition. And of course hand-spudging is wholly unwarranted in plants doing essential war work that can qualify for a *Finnell 84-XR Industrial Dry Scrubber*.

Stubborn, heavily packed-down coatings on wood, wood block, and cement floors yield to the powerful scarifying brushes of the *Finnell 84-XR* in but a *fraction* of the time it takes the laborious hand-spud way. The *Finnell 84-XR* DIGS out the dirt . . . and thoroughly!

Note low construction . . . permits use around and beneath equipment. Has adjustable handle. Power is assured by a heavy duty G. E. Motor. Oversize bearings; sturdy, reinforced gears; leak-proof gear case. Built throughout for long, trouble-free service.

For free floor survey, literature, or consultation, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3806 East St., Elkhart, Ind.

A slight adjustment adapts the Finnell 84-XR to wet scrubbing, steel-wooling, waxing, or polishing floors.

FINNELL SYSTEM, INC.

Pioneers and Specialists in
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES



TVA'S "STUDENTS"

Now working with Tennessee Valley Authority, W. H. Wang (above) and seven other young Chinese engineers are being trained to help build post-war China's huge waterway projects. Dominating Chungking plans are developments—like TVA—to harness rampaging rivers for power and irrigation. The National Resources Commission of China, meanwhile, is also training many technicians in American industries.

SPUD BATTLE WON

East Texas potato farmers won their battle with OPA for an increase in prices (BW—May 22 '43, p. 14), but they may find they have lost the war when it comes to selling the spuds. When OPA clamped a ceiling of \$2.50 per cwt. on potatoes, State Agriculture Commissioner J. E. McDonald arbitrarily raised it to \$3.50.

OPA agents swarmed into the market places ready to proceed against violators of the federal ceiling and succeeded in discouraging the co-op farmers of Harris County from accepting the Texas price. After a few days, OPA yielded, allowing \$3.15 per cwt. (including 25¢ freight) by the wholesale truckload delivered; \$3.30 (including 25¢ freight) for the farmer selling to a retailer; and \$3.75 (including 25¢ freight) for the farmer selling at retail.

Now the wholesaler is squeezed. He is permitted only 60¢ per cwt. (including 25¢ freight), and the profit potential is no lure for him. Furthermore, the farmers have harvested 80% of their 20,000 acres of potatoes, and, even though retailers and wholesalers are lightly stocked with potatoes, the farmers are finding it difficult to move the spuds because of the uncertainty as to whether OPA will continue to stick to its new ceilings.

THUMBS DOWN ON SERIALS

Daytime radio programs, with special reference to the soap serials, have long been a pet phobia of such reform groups as the Women's National Radio Committee. But as long as the soap sold, nobody in radio advertising paid too much attention to the chorus of complaint.

Last week, however, the Blue Network announced findings of a nationwide survey which suggested that the ladies might be right in their statement of what women wanted to hear while they did the ironing or cooked dinner. As tactfully as possible, the line this week was suggesting to radio advertisers, actual and potential, that they might try to fit programs to the facts uncovered in the survey made by Foote, Cone & Belding under the supervision of Sam Gill, market research specialist.

Some sample findings:

Only 28% of occupied homes have sets turned on at any one hour during the day, compared to 40% at night.

Although 79% of all network commercial daytime programs are devoted to serials, this type of program commands only 50% of the actual listening.

Of the housewives who listen to serials, 28% say there are too many of them.

More serious music is requested by 40% of the housewives, and 12% want more popular music.

POST-EASTER BUNNIES

Always the country's rabbit meat center—but with a marketing problem—Los Angeles suddenly finds its miniature packing industry popular with buyers and has organized the Rabbit Processors Assn. of California.

As late as a year ago, leaders in the association urged eastern meat markets to try a few shipments of rabbit meat on their customers. But there was little response.

Now these same eastern dealers are writing, wiring, telephoning Los Angeles to see if there is rabbit meat to spare—and there can be little response. For with war workers, and meat shortages, the whole Los Angeles output is easily marketed fresh by truck right around home.

Last year, the Los Angeles packing houses processed 3,600,000 rabbits. Meat brought \$1,600,000; pelts, \$864,000. Heads were sold to fox farms, pelts and tails to furriers and hatmakers, feet for good-luck charms. This year, production will at least double. And that makes little allowance for the many families that will probably have built rabbit hutches in their own back yards to supplement meat supplies (BW—Mar. 20 '43, p. 55).



They pioneered on the Santa Fe Trail
—and America is STILL pioneering.

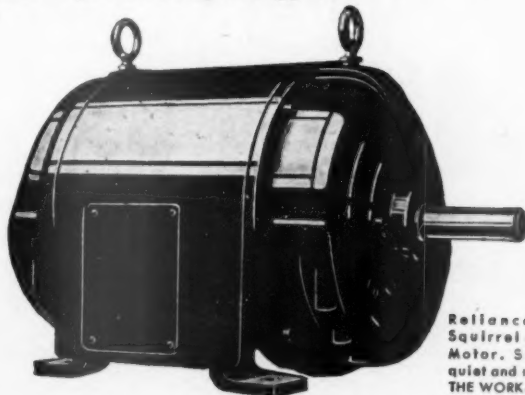
PIONEERS!

Since the days of line shafts, wooden pulleys and dangling belts, Reliance has pioneered in the application of electric motor-drive.

Cooperating with machine designers, Reliance engineers have been able to eliminate transmission gadgets — gears, brakes, clutches, belts, couplings — and have made power control exceedingly simple, easy and effective.

The results: lower-priced, better-performing, more salable machines; and, for machine users, stepped-up production with better quality at lower cost.

All Reliance salesmen are Engineers and Pioneers . . . engineers who know electric motors and motor-drive; pioneers, not afraid to tackle something new. Send for one if you need practical, helpful suggestions.



Reliance A-c
Squirrel-cage
Motor. Simple,
quiet and rugged.
THE WORK-HORSE
OF INDUSTRY.

RELIANCE^{AC}DC MOTORS



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Birmingham • Boston • Buffalo • Chicago • Cincinnati • Detroit • Greenville (S.C.)
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St. Louis • San Francisco (Calif.) • Syracuse (N.Y.) and other principal cities

YOU WON'T BE LEFT HOLDING THE BAG IF YOU SWITCH TO PLASTICS



SEND

FOR OUR ILLUSTRATED CATALOG

It Contains Information On

• ENGINEERING AND PRODUCT DESIGN

• MOLDING MATERIALS

—Chemical and physical properties.

• FINISHED PRODUCTS

—coloring, stamping and other finishing.

• ADAPTABILITY

—replacement for other materials.

CATALOG IS FREE

We invite you to consult with our engineers on any plastics problem confronting you. There is no obligation.

Plastics Division
ERIE RESISTOR CORP., ERIE, PA.

Get Drawings Into the Shop
DAYS FASTER!



HUNTER Electro- COPYIST

the machine that
COPIES
ANYTHING

Gives up to
25 COPIES PER HOUR

- drawings
- 3-dimensional visuals
- pencil preliminaries
- pencil details
- worn or borrowed prints
- photographs
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★ At last — near-magical relief for hard-pressed drafting rooms. A machine that gets drawings into the shop **DAYS FASTER**... photo-exact reproductions that need no re-checking. It's tailor-made for today's 3-dimensional visuals, as well as for the pencil-line preliminary designs and detail tracings so useful in many engineering departments.

★ Electro-Copyist photocopies anything drawn, written, printed or photographed, in a few minutes at the most. Has no lenses; needs no focussing or darkroom. An office boy can operate it. Write today for the latest folder — it shows time savings in scores of ways for your engineering, purchasing, legal and general office departments.

HUNTER ELECTRO-COPYIST, Inc.
107 E. Fayette St. Syracuse, N. Y.

FINANCE

Dip into Payrolls

Treasury restyles its war bond drives to fight inflation, excluding commercial banks, in effort to avoid forced saving.

With the latest changes in its borrowing program, the Treasury finally has drawn a clear line between commercial banks and individual subscribers. Hereafter, the banks won't take any part of the huge quarterly bond offerings. The Treasury will coax everything it can from individuals and institutional investors during the regular drives. Then it will call on the banks to put up the balance of what it needs in between-times.

• **The Change Is in Timing**—Although some details of the change aren't clear yet, it isn't really as important as it sounds. The Treasury got much the same effect in its two previous drives simply by putting a limit on the amount of bonds banks could take. Excluding banks from future campaigns doesn't mean that Secretary Henry Morgenthau thinks he can get all he needs by ringing doorbells. He will make regular visits to the banks.

However, separating banks from other investors has a good many advantages.

Bond dealers have been wondering why the Treasury didn't get around to some time ago. For one thing, salesmen think the public will be more impressed if it has to meet a campaign goal by itself instead of counting on the banks to take up the slack. More important, the Treasury will find it easier to tailor issues to fit the needs of various types of purchasers.

• **Emphasis on Campaigns**—Under the new system, there will be three or four big bond drives a year—tremendous campaigns with all the trimming. Purpose of these will be to get subscriptions from individuals and institutional investors—savings banks, insurance companies, everything but commercial banks. Volunteer salesmen will make the rounds as before.

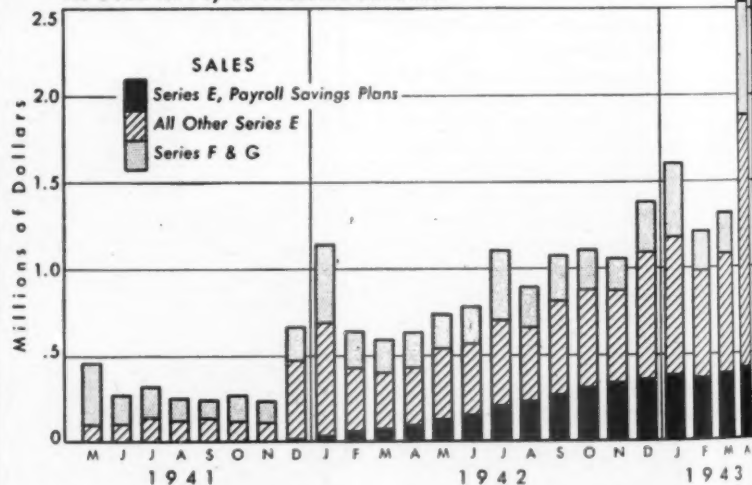
After the big drive, the Treasury will check over the results, decide how much more it needs to meet current expenditures, and announce an issue designed for the commercial banks. This sale won't need any fanfare. The banks are well trained by now and will take what the Treasury hands them.

• **Ace in the Hole**—If Secretary Morgenthau should fumble things so badly that subscriptions lagged, a few discreet telephone calls from Federal Reserve officials would bring out buying orders from the big banks that make the money market.

Between drives, the Treasury will

WAR BOND SALES HIT NEW HIGH

April Loan Drive Spurred Lagging Total
As Goals for Payroll Deduction Sales Rise



Spurred by the Treasury's high-pressure loan drive, war bond sales jumped to the record total of \$2,555,000,000 in April, but even this is a long way short of the amount needed to make

bond sales an effective weapon against inflation. To boost the total, the Treasury plans a new campaign for greater payroll deductions. Goal is average 15% of incomes.

...ve the market a chance to fatten up, but it will keep on hammering at payroll deductions for Series E war bonds. Just a few weeks ago, it decided to boost the goal for payroll deduction from 10% to 15%. To put this over, it is running a new campaign of advertising and promotion.

Damping down Inflation—Of all the issues that Secretary Morgenthau has to sell, only the E. bonds are really inflationary. Purchasers usually pay for them out of current income, thus reducing their demands for goods. Other issues that individuals and institutions buy merely mop up savings that wouldn't have gone into consumption anyhow. Sales to commercial banks, of course, are directly inflationary.

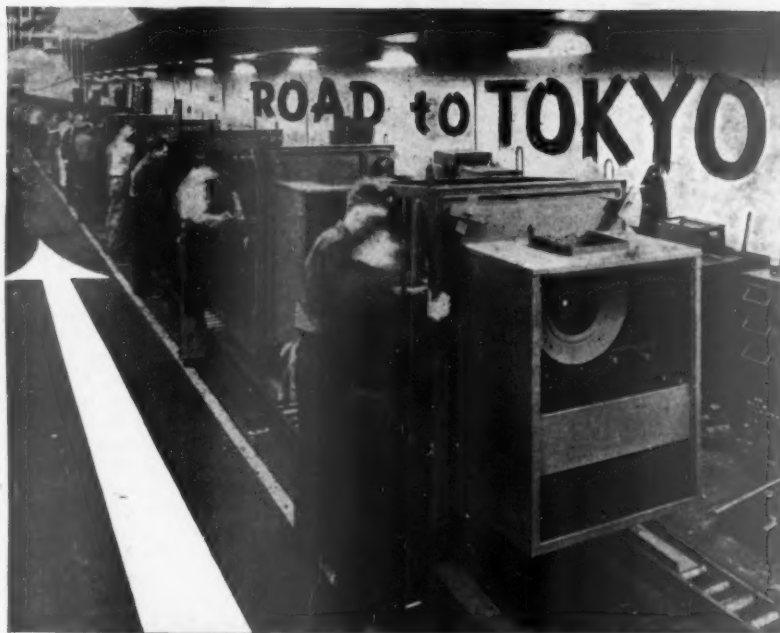
The growing emphasis on heading off inflation explains most of the war-time changes in Treasury policy. At first, Secretary Morgenthau followed the old custom of laying a bond issue out on the counter and asking for subscriptions. Under this system, the share taken by commercial banks increased steadily because few private investors wanted bonds badly enough to go their buying cafeteria style. In the last half of 1941, commercial banks bought 41% of new marketable issues. In the first six months of 1942, they took 56%.

Ratios Improve—To reverse this trend, Secretary Morgenthau changed methods in the last half of 1942 and staged the big December loan drive, aimed primarily at individuals (BW—Dec. 5'42, p96). Banks furnished only \$5,072,000,000 or about 39% of the \$12,937,000,000 raised by the December campaign. In April, the score was even better. Banks took \$5,048,000,000, about 27% of the \$18,533,000,000 total (BW—May 15'43, p104).

However, for the period as a whole, the banks' share was a good deal higher. The Treasury sold roughly \$25,000,000,000 worth of securities in the first four months of 1943, and banks took around \$10,000,000,000 of them. This means that they were carrying about 40% of the new financing in spite of all the Treasury could do.

Splitting the Load—If Secretary Morgenthau's plans work out, the Treasury will make a better showing in coming months. Tentative schedules for this year call for borrowing around \$70,000,000,000. Individuals are supposed to put up the largest slice of this, approximately \$25,300,000,000. Commercial banks are down to \$22,800,000,000. Corporations will subscribe \$13,100,000,000, and the balance will come from other non-banking institutional investors.

Morgenthau is hearing a lot about inflation from hard-pressed officials in the Office of Price Administration who have discovered that no amount of



UNIVERSAL COOLER REFRIGERATING UNITS

... BOUND FOR "YOUR TOWN" VIA TOKYO •

Universal Cooler workers call their newest production line "The Road to Tokyo" because the war equipment it produces will help lick the Japs. When this objective is accomplished we can look ahead to peace and new opportunities for all American business.

To Universal Cooler that means the manufacture of refrigerating units to serve YOUR business by providing frozen storage, low-temperature protection for perishables, water and beverage cooling, air conditioning or machine tool cooling. From the day of Victory, Universal Cooler refrigerating units will be available to you with important new developments adapted from present production for severest combat duty.

*"Let's Ask
Universal Cooler"*

To get better acquainted there is an attractive, illustrated 24-page booklet outlining Universal Cooler's production facilities, product features and nearly a quarter-century of engineering experience. If refrigeration, air conditioning or machine tool cooling will play any part in your post-Victory activities, you'll find this booklet valuable.

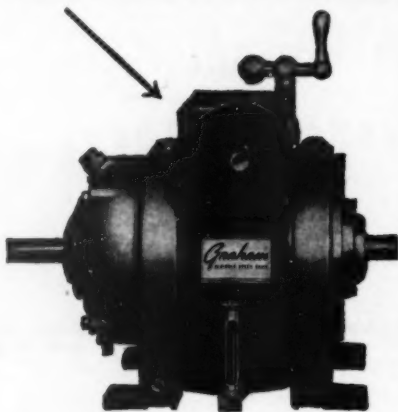
REFRIGERATING UNITS FOR: FROZEN FOOD CABINETS . . . FOOD STORAGE REFRIGERATORS AND DISPLAY CASES . . . COMMERCIAL REFRIGERATION EQUIPMENT . . . AIR CONDITIONING . . . ALSO MACHINE TOOL COOLING EQUIPMENT.

UNIVERSAL COOLER

WE SELL TO MANUFACTURERS ONLY

UNIVERSAL COOLER CORPORATION • Automatic Refrigeration since 1922
MARION, OHIO • BRANTFORD, ONTARIO

WHY CRAMP YOUR NEW MACHINES WITH LIMITED CHOICE OF SPEEDS when the GRAHAM gives ALL SPEEDS from TOP to ZERO



ONLY THE
Graham
VARIABLE
SPEED DRIVE
GIVES YOU

1. Not just 5 to 1 range, or 10 to 1, or 100 to 1, but every speed to zero, forward and reverse, without stopping the motor.
 2. Full torque guaranteed over the entire speed range.
 3. Close speed adjustment with accurate return to pre-set speeds.
 4. Extreme compactness, all metal, self-lubricated, no belts, moderate price.
- Machine designers who are modernizing for the post war market should investigate the Graham. Write for Bulletin 501

Machine Builders — Order a 1/2 HP Graham now to prove its advantages — use it in your laboratory as a utility all-speed test unit. WE CAN DELIVER!

GRAHAM TRANSMISSIONS INC.
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THE MARKETS

With the bull market lusty as ever after 13 months of steady progress, it becomes more and more certain that Wall Street is laying its bets on the basis of two predictions: (1) eventual victory, and (2) at least some measure of inflation. Various other developments have helped boost the averages from time to time, but these two long-term factors have been the driving force behind the advance (BW—Apr. 3'43, p15).

• **Week's News Bolsters Hopes**—Events this week strengthened the Street's confidence in its forecasting. Conclusion of the conferences on high strategy (page 15) backed up investors' convictions that the war—no matter how long it may run nor how costly it may be in men and materials—will end in the unconditional surrender foreshadowed by the agreement at Casablanca.

News from Attu and reports of a great Chinese victory over the armies that menaced Chungking brightened the picture in the Far Eastern theater. And the rising tempo of air war against Europe put new life into hopes for a second front.

• **OPA's Moves Watched**—The prospect of inflation also moves several steps closer as it becomes apparent that President Roosevelt's hold-the-line order is practically a dead letter already. OPA's change of heart (page 17) means that the wage-price spiral won't be broken on the price side. And while the sudden flurry of strikes is, essentially, bad news for stockholders, it shows that workers don't intend to put up with the Little Steel formula, no matter how much lip service their leaders and government officials may render it (BW—May 8'43, p15).

Incidentally, it should be noted that it's not at all certain that inflation would

benefit common stocks as a whole. With prices more or less frozen and with the excess profits tax putting a ceiling on income, it would be easy for a corporation to lose its shirt in a time of rising costs and general monetary turmoil.

• **Pro and Con**—However, investors don't buy stocks on the basis of theoretical economics. To most of Wall Street, the prospect of inflation is bullish, and knowing that, traders don't care whether or not their reasoning will stand the tests of formal logic. Moreover, in making a hedge against inflation, the primary consideration is not income but safety of the principal.

Naturally, none of this means that the stock market can't turn around and go back down. After the long rise prices are particularly sensitive to bad news.

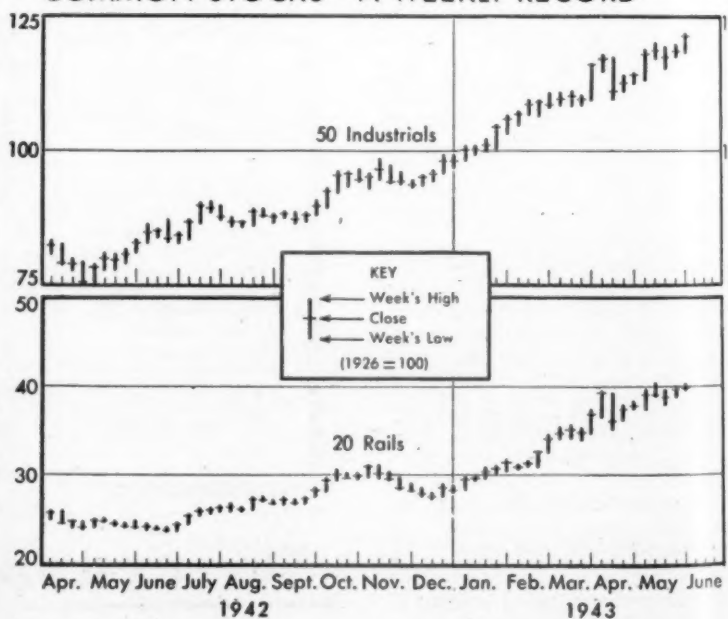
• **Careless Speculation?**—Some traders may have been carried away by recent military success and may not be paying enough attention to the amount of ground that remains to be covered. Probably a lot of them are gambling on inflation without realizing clearly what it is or what its consequences would be.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	121.6	118.5	118.0	82.4
Railroad	39.9	39.7	39.2	24.1
Utility	47.6	47.0	47.1	30.8
Bonds				
Industrial ...	116.7	116.1	116.1	107.8
Railroad	100.2	100.2	99.6	82.4
Utility	114.2	114.0	113.6	102.2
U. S. Govt. ...	112.4	112.1	111.0	110.8

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

ice freezing will stand up against the pressure of inflationary borrowing. The Federal Reserve Board also is making warning noises. There isn't any doubt about what the Treasury would like to do. The big question is how to do it. **Compulsory Savings?**—Separation of individual subscriptions from bank purchases is about the last piece of tuning up that the borrowing machinery needs. If it doesn't work now, the whole system will have to be scrapped. That should happen, it would mean that the Treasury would have to adopt some sort of compulsory savings in spite of its devotion to voluntary methods.

Lenders Fan Out

Instalment loan concerns acquire manufacturing firms to make up for business lost by shrinkage in automobile paper.

With the instalment loan business picking up steadily, the big sales finance companies have spent the last year or so looking for new ways to put their assets to work (BW—May 9 '42, p. 80). Although most of them have concentrated on building up former sidelines such as factoring and accounts receivable financing, an increasing number have been moving directly into manufacturing.

Two of Big Three—Leading the trend in this direction are Commercial Investment Trust and the Commercial Credit Co., two of the three big companies that dominated instalment finance in prewar days. The third big operator, General Motors Acceptance Corp., formerly handled the largest volume of all, but since passenger car sales dropped, it has been sitting tight, letting its instalment paper run off.

Toward the end of last year, C.I.T. bought up two small but busy manufacturing companies, both with substantial backlog of war orders. The Holtzer-Abot Electric Co., its first purchase, turns out fractional horsepower motors, while the Micro Switch Corp. manufactures electrical apparatus.

Commercial Credit's Steps—Commercial Credit began fanning out by taking over 95% control of the Pennsylvania Casualty Co., an insurance underwriter with a volume of about \$5,000,000 a year in net premiums. (C.I.T. had taken over National Surety some years ago.) Last July, Commercial Credit also bought out the Kaydon Engineering Corp., of Muskegon, Mich., a fair-sized manufacturing business. Altogether, Commercial Credit has invested in a dozen or so manufacturing firms with a total value of around \$9,000,000.

So far, both C.I.T. and Commercial Credit have moved cautiously, and manufacturing represents only a fractional



Lend them a hand
Buy War Bonds

BANK of the MANHATTAN COMPANY
NEW YORK

Chartered 1799

GLOBE-WERNICKE WOOD FILING EQUIPMENT FULLY MEETS YOUR FILING PROBLEMS

Globe-Wernicke offers a wide variety of modern wood filing equipment. There are many styles and sizes . . . each designed to fit a particular requirement. They are dependable and efficient wartime products that save steel . . . will last a business lifetime. Let your local Globe-Wernicke dealer help solve your filing problems. Consult him today . . . or write direct to us for more information.

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percent of their business. Their big income producers these days are factoring and accounts receivable financing. During 1942, factoring—the purchase of manufacturers' and wholesalers' claims against dealers—accounted for 70% of Commercial Credit's receivables business. The year before it was only 30%.

● **Auto Business Slumps—Shrinkage** in instalment financing of automobiles and other durable consumers goods more than offset this growth. In 1942, motor vehicle retail sales accounted for a scant 10% of the paper purchased by Commercial Credit, and automobile wholesale notes and advances were less than 13%. In 1941, the two classes together made up about 62%.

C.I.T. has much the same story to tell. Last year, 73% of its business was in factoring, which compares with 27% the year before. Retail automobile sales financing was only 7% of its total and wholesale 9%, against 27% and 37% in 1941.

● **Ventures of Others—**The two big companies aren't the only ones that are spreading out in an attempt to fill the gap left by the evaporation of instalment finance. Associates Investment Co., one of the largest "independents," has purchased two war plants through its subsidiary, National Industries, Inc. General Finance Corp., another good-sized company, has arranged a diversified investment program that includes metal fabricating, food processing, and prefabricated housing. Domestic Finance Corp. has bought up three tool companies, plans to take over another.

Although the finance companies moved into manufacturing from necessity, most of them say they like it there and intend to stay. For one thing, their broad tax exemptions give them better protection than the original manufacturing companies had, which meant that their investments are more profitable than past income records make them appear.

LOAN SNARL UNTANGLED

One curt decision from the Appellate Division of the New York courts this week straightened out the legal tangle that has been badgering personal loan companies. In a one-sentence ruling, the appeals judges reversed the decision of the lower court which had held that notes and chattel mortgages given the Household Finance Corp. by three borrowers were void because their wording failed to comply with technical requirements of the state law (BW—Mar. 13'43, p109).

According to the appellate decision, it is enough for the loan company to state that if the borrower defaults on a payment, the whole amount may fall due immediately. It doesn't have to specify all the circumstances under which maturity may be accelerated.

THE TRADING POST

Black Markets

Paragraphs lifted from a letter recently received from London and written by a man who is in position to reflect British business views:

There is much agitation in certain quarters here over the possibility that the United States will get uncontrolled inflation. It is, of course, obvious that, during the war, the factors making for inflation will be present. Everyone is employed at good wages so that the spendable money income of the nation is greatly increased. At the same time productivity is deliberately hobbled to making weapons of war so that consumer goods are in far shorter supply than normally.

Under such conditions the only possibility of avoiding inflation is strict rationing, coupled with price-fixing. In the long run that will work only if the people are efficiently disciplined and unselfish to make it work. If, instead of being content with their ration, people with money try to get more than their fair share, then black markets will develop. Unless public opinion condemns such people as traitors and the public generally will immediately expose them and have them punished, then black marketing will develop to a point where it breaks the rationing and price-fixing schemes.

I should be interested to know whether strong enough public opinion exists in the United States to ensure that black marketing will not be tolerated by the people themselves. If the people tolerate it, then no government can stop it.

* * *

In answer to this question, one American observer reports and suggests:

As yet there is no general sentiment against the black market in this country. Just as prohibition was ineffective when there was a substantial portion of the public opposed, so black markets will multiply unless the meaning of this menace is brought home to each individual household. Canadian women regard the maintenance of stable prices as their contribution to the war, and it is their voluntary reports to the War Time Prices and Trade Board which are a most effective source of information with respect to violations.

Bankers are capable of understanding the dangers of a further rise in prices. Throughout the country the local banker plays a far larger part in the life of his village, town or city than seems generally understood in Washington. This is the best group which should be asked to marshal its influence in the price war.

The women of the country have been making for an opportunity to give vital help to the war. Again and again they have been put off by officials who did not quite know what to do with them. If the bankers of each community ask the women's clubs of the country to render a war service by mobilizing total public opinion against higher wages and prices, the task will be undertaken enthusiastically.

Big Ideas From Small Plants

A letter from C. A. Woodhouse, president, Michigan Bumper Corp., Grand Rapids:

Much space has been devoted recently to the subject of "armor speeded," with principal credit for the development of fixture quenching and straightening going to one of our great automobile producers. The most recent article appears in Business Week, May 8, '43, p. 48.

On behalf of the little fellow, we would like very much to show you a quenching and straightening fixture for processing armor plate like the one described in your article. This fixture weighs approximately twenty-three tons, was designed by our engineers, built according to our specifications by the Superior Tool and Die Co. in Detroit, and delivered to our plant on Oct. 1, 1942.

The idea for fixture quenching originated early in the year 1942, in what later developed as the "armor plate program." The necessity for such a fixture in our particular case was due to the fact that we did not have room in our plant to set up a battery of straightening presses even if they were available.

We had been invited to join a group of so-called "partner contractors," made up of small manufacturers quickly gathered together to do the job of fabricating armor plate for tanks. As early as April, 1942, plates which had been fixture-quenched in our plant in sizes 36" x 42" were submitted to Aberdeen, and passed ballistic tests.

We originally planned a production of 1,100 tons of armor plate per month in an area of less than 40,000 square feet. The government, through Ordnance, was to lease to us a 65-foot high-heat furnace, and a quenching and straightening fixture built to our specifications. This equipment, together with our own hydraulic presses, would enable us to fabricate the required tonnage.

We are sure you will find the fixture-quenching method now quite universally used in the industry, although some of the plants which originally advocated the procedure are no longer favored with armor plate business.

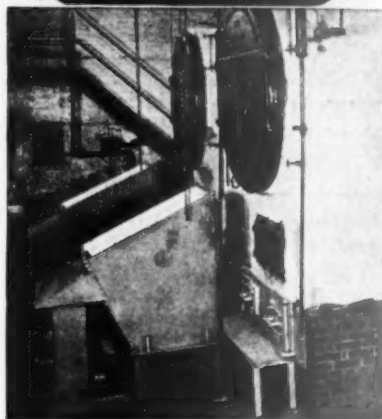
We are not familiar with the date fixture-quenching and straightening armor plate was started by other armor plate fabricators, but we do know that in our own plant we produced sample plates by this method many months before articles showing its superiority over the former procedure began to appear in public print.

The efforts of small manufacturers to produce the war requirements of the government, particularly in the early stages of the conflict, have contributed materially toward speeding up production by offering ideas and lending engineering brains to the program.

We are sure that Business Week has many subscribers who share our opinion that many of the really big improvements originated in the fertile brains of the smaller, one or two-man engineering staffs.

W.C.

COAL is
Helping Win on
the Home Front



Fire Coal Automatically with an IRON FIREMAN STOKER

COAL, America's permanent fuel supply, is the "home front" source of heat and power.

Today in war production plants, buildings and institutions throughout the country, Iron Fireman stokers are firing millions of tons of coal automatically and economically. Steam output is being increased 10% to 35%... large savings are made in fuel costs. And already, hundreds of millions of gallons of vital fuel oil are being saved for our armed forces by the use of Iron Fireman commercial and industrial stokers.

Iron Fireman stokers are now available. Find out how quickly Iron Fireman equipment can be installed, and what it will do in your plant. Write, wire, or telephone Iron Fireman Manufacturing Co., 3418 W. 106th St., Cleveland, Ohio. Plants at Portland, Oregon; Cleveland, Ohio; Toronto, Canada.



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IRON FIREMAN
Automatic Coal Stokers



THE TREND

DEBT AND TAXES—KEY POSTWAR PROBLEMS

In laying out their blueprints for the world to come, postwar planners are inclined to brush aside two troublesome questions of fiscal policy. One concerns the national debt and the annual service charges on it. The other deals with the amount of revenue the government will need in postwar years.

• It's easy to overlook these financial problems, because, since the start of the war, most economic thinking has been in "real" terms—in tons of steel, square feet of factory floor space, man-hours of employment. Direct controls, such as rationing, wage freezing, and scheduling of production, have overshadowed the indirect pressures the government exerts in the course of raising money and spending it.

This approach may be all right as long as we are dealing with the wartime economy, but planners, both amateur and professional, are due for a shock if they leave government finance out of their postwar calculations. Direct controls are the big thing today, but it doesn't follow that, in abolishing them, federal authorities will surrender their power over income, production, and consumption. Instead, the size of the national debt and the estimated need for revenue make it clear that, after the war, government fiscal policy will be one of the dominating factors in the country's economic and social life.

The effects of government taxing and spending always tend to shift the balance in an economy. Inevitably they take income from one group and give it to another. As long as the government operates on a comparatively small scale, this shift passes unnoticed, but its importance grows with every increase in the state's share of national income. Fiscal policy is neutral only when it is negligible.

At this stage of the game, it is impossible to tell much about the government's revenue requirements or the size of its debt after the war. One thing is certain, however. They won't be negligible.

• At present, the national debt stands around \$130,000,000,000, and we are adding to it at the rate of \$70,000,000,000 a year. This means we probably will hit the \$200,000,000,000 mark early next summer, and that we will get up to something like \$300,000,000,000 by the end of 1945. Assuming that the war ends in 1945, and allowing an extra \$50,000,000,000 for tapering off, we are likely to come out of it with a total debt somewhere between \$300,000,000,000 and \$350,000,000,000.

As soon as we start shifting to a peacetime basis, the government will have to decide what it intends to do about retirement, refunding, and annual interest charges. If it wants to pay off part of the debt, it will have to levy taxes to raise the money. To make any sort of dent in the total, it would have to transfer at least \$3,000,000,000 a year from taxpayers to bondholders. This would mean a broad-scale redistribution of income and wealth. Whether

it was planned or capricious would depend on how well the government realized what it was doing.

Even more important than repayment is the problem of handling the annual interest charges. The government won't have to undertake a program of debt retirement unless it wants to, and there are several telling arguments that probably will discourage it. For one thing, heavy debt retirement is deflationary, and in the critical years after the war, violent deflation will be the last thing any government wants. Moreover, a convenient thing about national debts is that they become easier and easier to carry as the economy expands. In a growing country, if you can just sit tight long enough, national income eventually rises to the point where the debt is comparatively light. This was what happened to our Civil War debt.

• However, neither of these arguments will make the interest problem any simpler in the years immediately after the war. On a debt of \$350,000,000,000, interest would run to about \$7,000,000,000 annually, or about the size of our total government budget before the war. Collecting this in taxes and paying it out to bondholders will raise the same problems that come up in connection with debt retirement.

Interest charges are only one item in the government budget, and many of the others have climbed to permanently higher levels. Ordinary expenses of the government departments will run at least \$6,000,000,000 after the war. What we will pay for our military establishment is pure guesswork, but a minimum of \$5,000,000,000 a year looks probable. With interest charges, this gives a total of \$18,000,000,000 without any allowance for postwar rehabilitation, expanded social security, or a public works program. Hence, the odds are that federal budgets will run from \$20,000,000,000 to \$25,000,000,000 over-all.

All this means that federal authorities will have direct control of something like 25% of the national income. Consciously or unconsciously, they will swing the balance in the distribution of incomes among the various economic classes, and through incomes, they will influence the whole pattern of production and consumption.

• Regardless of the current talk about swinging pendulums and inevitable political reactions, the government won't be able to evade the responsibility and power that go with control of one quarter of the nation's annual income. Any postwar administration, whether it is conservative, radical, or on-the-fence, will have to face problems it might otherwise have found convenient to ignore—problems of income distribution, of tax reform, of adjusting the balance between consumption and investment. And the decisions it makes will be among the principal forces that shape the postwar world.

The Editors of Business Week

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